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OF SOME

FORMS OF DISEASE.

ON THE

TRANSMISSION,

FROM

PARENT TO OFFSPRING,

OF SOME

FORMS OF DISEASE,

AND OF

MORBID TAINTS AND TENDENCIES.

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PREFACE TO THE SECOND EDITION.

The demand for a reprint of this work affords an opportunity of furnishing some additional facts relative to the communicability of syphilis in its secondary, as well as in its more advanced stages, and also on the subject of treatment—two points on which authors are still far from being generally agreed.

In reference to the first of these questions, my experience during the past six years has served to confirm the belief before expressed, that not only is the matter of secondary sores capable of reproducing disease of similar character by inoculation; but that lingering taints, the existence of which is scarcely, if at all recognisable by external phenomena, are also communicable through sexual, if not through other media, and thence liable to be continued in the offspring.

The recent experiments of Mr. Wallace leave no room to doubt the validity of this doctrine; and Dr. Waller of Prague has shown that, in order to reproduce the phenomena of secondary accidents by inoculation, it is by no means necessary to use the concentrated poison as met with in form of cutaneous deposit, but that a much more diluted state of it is quite sufficient: this pathologist having succeeded in implanting the disease by inserting the blood of an infected person on the

abraded skin of one previously in sound health. In the face of this fact, who will dare to say that the salivary and mucous secretions, or the cutaneous transpiration of a contaminated person, are innocuous?

On the subject of treatment the profession seem to be divided between the three methods practised severally by Mercury, Iodine, and Syphilization. The mercurial plan is that which has thus far afforded the most satisfactory results in my practice, and is indeed the only one upon which I would, guided by past experience, place any reliance; while the iodine preparations, without the aid of mercury, even when given to the fullest extent, have failed to produce more than amelioration of symptoms. Of syphilization I have no experience; but its sufficiency as a curative agent is thus far doubtful.

The last chapter is devoted to the consideration of the alleged injurious effects of mercury. The observations recorded, intended to elucidate this subject, will serve to show that the troubles commonly attributed to the action of this drug, existed previously in cases where mercury had never been used, and were manifestly due to the unsubdued morbid principle, as they entirely disappeared after the effectual employment of the remedy, and did not return.

It is confidently hoped that, when the remedy now advocated shall have been more generally and efficiently tried, prejudice against it will cease to exist.

MANCHESTER, *June*, 1857.

PREFACE TO THE FIRST EDITION.

The study of uterine pathology is inseparably connected with the study of the phenomena of infant and embryonic life; and he who devotes attention to the first must of necessity have many opportunities of witnessing the order in which the various evolutional and developmental processes take place, and in what manner these efforts are sometimes marred, and not seldom frustrated, by the agency of malign influences originating in human error.

In the course of my investigations into the nature and forms of uterine diseases, some of the results of which were recorded in a treatise published in 1847, my attention was early and frequently attracted to the effects which constitutional disorders, especially those of a specific nature, existing in the parents, appeared to produce upon the reproductive organs and upon the offspring. A mother so tainted, or who was allied to an unsound husband, was seen to produce an unhealthy child; such women were also found, upon careful inquiry, to abort more frequently than others; and in many cases of barrenness, the taint was discovered to prevail in one or

both parties. Several illustrative examples were given in detail.

The subject, however, was no more than passingly noticed. At page 301 it was stated that, besides women suffering from uterine disease, a great number of infants and children also were made the subjects of inquiry, with a view principally to ascertain the period of the first appearance, as well as the characterizing features and the mode of development of inherited specific maladies, in cases where such maladies were known to exist, or were suspected to have previously existed, in the parent. And, although forming a very important and interesting branch of pathological study, it was mentioned that their consideration was not intended to occupy any place in that treatise, except so far as their occasional mention might be made serviceable in elucidating the character of the affections from which they appeared to have derived their origin.

At page 369 it was stated that a venereal affection in the wife might exist "as a consequence of secondary inoculation; the affection having lost its primary character in the first individual before being transplanted by contact upon the second." It was further said, at page 370, "The female system appears, upon superficial observation, to suffer less severely from the effects of syphilis than does that of the male. This seeming difference in their relative susceptibilities may be owing to the circumstance that the phenomena are differently manifested in the two sexes respectively; but it is not improbable that, when the subject shall have been submitted to a more rigid investigation, the state of the

case will be found to be precisely reversed—the disease, in some instances, continuing in active operation for years where its existence was not suspected, the signs announcing its presence, although sufficiently intelligible, having been altogether misinterpreted." This observation, it is needless to say, refers to uterine syphilis. Indeed, it is recorded in another paragraph that "evidences of syphilitic disease may be found in the lower part of the uterus long after the disorder was believed to have been driven altogether out of the system."

At page 372 the general evidences of constitutional syphilis in the female are stated to be "pallor of the countenance, languor, precarious appetite, loss of rest, hectic feverishness, lumbar and hypogastric pains, disordered secretions, and the appearance of the disease in the offspring." Certain signs, thought to be pathognomonic, were also given, such as endo-metritis, a mottled or patchy aspect of the cervix uteri, aphthæ of the cervix, and warty excrescences. Several additional years of observation have served to confirm these statements, and have enabled me to furnish other particulars, which I doubt not will be found to be accordant with what may have fallen under the notice of those of my professional brethren who have paid attention to the subject.

But, besides confirming the statements relative to the transmission of the syphilitic taint from parents to their children, even from those parents in whom all external evidence of the disease had ceased to exist, the inquiry may also contribute towards the further elucidation of another fact of equal importance; that, namely, of the derivation of certain forms of disease, commonly consi-

dered as of simple nature, from imperfectly cured syphilis; a doctrine much more generally believed in by physicians of past ages than by those of the present day. Children who had exhibited evidences of constitutional syphilis of a genuineness which could not be doubted, both on account of its form and of the antecedent circumstances, were seen, some time after the first accession of symptoms had been subdued, to have relapses at intervals varying from one to several years, the character of the disease undergoing certain changes, in some of its phases, at each recurrence, but still retaining one or more of its essential attributes. In course of time, however, it gradually altered, assuming at a later date more the type of disease not commonly deemed to be of specific nature. For example, an infant of syphilitic parents has an attack of syphilitic erythematous disease in the second week after birth; this is speedily subdued by treatment, and the child thrives for a time. During the period of teething, or after that of weaning, an eruption of vesicular or squamous character breaks out, attributed usually to error in diet or to atmospheric influences. This also may be modified, or even made to disappear, by remedies in common use. At the second teething period, often much earlier, impetiginous eruptions come out on the scalp and elsewhere, with enlarged lymphatic glands about the neck; these symptoms partaking less of the venereal character than those of earlier date. At a still later epoch the hypertrophied glands become more prominent, some undergoing the process of suppurative inflammation, and the patient is considered to be decidedly scrofulous, the secreted matter possessing

the sanio-flocculent character of scrofulous suppuration. In this way the purulent, the scrofulous, or other morbid habit of body, is developed, liable to manifest itself, each in its particular way, at certain critical periods of life, especially at puberty; or it may be brought into active existence by external agencies at any period, in form of chronic abscesses, arthritic affections or white swellings, or laryngitis terminating in fatal disease of the lungs; or the latter malady may be produced more directly by tuberculous deposit, or abscess of these organs, having in like manner a disastrous result.

In other instances disease of the mucous tissues developes itself, the direct effect of perverted nutrition, with impairment of the assimilative function of the solid fabric. Thus the rachitic diathesis is determined. These and other immediate sequelæ of syphilis may be modified to a certain extent by treatment; but, should the cause be not fairly understood, the proper remedies are not applied, and the taint remains to a certain extent as a constitutional evil, destined to stamp its character upon generations to come.

On comparing the morbid phenomena thus brought about, the history of which has been carefully traced from the beginning, with others of similar aspect whose history is not known, one is led to inquire more minutely into the etiology of those affections usually regarded as of simple or rather of unknown origin. In several instances of this kind submitted to rigid investigation, it has appeared highly probable that such agencies were in operation immediately previous to the first appearance of such symptoms.

I do not by any means attribute the origin of all cases bearing but a remote resemblance to those directly resulting from syphilis, to causes of specific nature. My wish is, having satisfied myself respecting the specific sources of some, to direct more particular attention to the subject. I have known a family of children whose father suffered from both acute and secondary syphilis in early life, of which he was considered perfectly cured before marriage, but who had, notwithstanding, a most violent attack of secondary disease of long duration, in form of cutaneous eruptions and burrowing inguinal abscesses, commencing twelve months after marriage, and without any additional infection—his wife suffering at the same time under a train of symptoms of like nature. Two of the daughters of this pair died before the age of twenty years of phthisis, complicated with white swelling of the knee in both—diseases which had previously been unknown in the family of either parent. The two sons suffered from syphilis in the usual form during infancy and childhood, the traces of which existed in adult life. The offspring of one of these bear evidence of the same taint in characteristic form. I was personally acquainted with these individuals, and had the early history from the father himself—a man of education and probity.

The perpetuation of sycosis is a fact sufficiently known. A case will be found in the following pages of its continuance to the fourth generation, on what I deem satisfactory evidence. In another instance where this form of disease existed with great severity in the second remove, in the person of a husband, the wife and off-

spring suffered from syphilitic symptoms of an unmistakeable character, of which the latter perished. I have no means of determining the mode of origin of this malady in the first-named example; and the evidence in the second was, unfortunately, of a hearsay kind only, but it was strongly in favour of its specific nature. In a third instance, however, in which the disease was well marked in a husband, and proved fatal both to his wife and a numerous offspring, the evidence of its syphilitic origin was conclusive, or at least as convincing as such kind of evidence commonly can be. This case, should its historical validity be admitted, leads to the inference that the disease in the two preceding instances may have had a similar commencement.

With reference to the treatment of the class of diseases under consideration, my opinion, after a varied practice in this department, remains very nearly the same as it was four years since. Whether the taint be of recent or of ancient date, I have invariably found it necessary to pursue a decided course of mercurial treatment, aided, at the proper stages, by sea-water and mineral baths, change of climate if practicable, and a rigid system of hygiene practised through a long period.

The present treatise is intended to be an exposition of the results of additional practice in the department of pathology referred to in the preceding quotations. Several of the cases formerly recorded have since been kept under notice, and are here reproduced with extended historical particulars, serving to elucidate the peculiar habitudes of morbid poisons.

Whatever difference of opinion may exist as to the

conclusions arrived at in this work, there can be no doubt that the cases recorded in it, and which are a faithful transcript of the facts, are eminently suggestive, and that the subject is one which very nearly concerns the happiness and well-being of mankind.

MANCHESTER, *August*, 1851.

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CHAPTER I.

DOCTRINE OF HEREDITARY TRANSMISSION.

In matters relating to the natural history of mankind, and to that of the animal creation at large, there are few points upon which writers appear to be more generally agreed than that which has reference to the perpetuation of constitutional peculiarities from generation to generation. This law obtains as regards both the physical and the moral attributes. The former, however, is undoubtedly the more characteristically consistent as regards the congenital impress, but is variously modified in its after-development by the operations of the mental processes, being variously qualified by education, occupation, change of climate, and other controlling influences.

The peculiar traits appertaining to a family of children are, for the most part, adequately prominent to distinguish all the members of it from those of another, even though deriving from the same stock; and further, how widely soever these allied groups may appear to differ the one from the other, there is generally existing, among the collateral branches of a widely-spread progeny, a degree of similarity sufficient to indicate their origin from a common parentage, although of antique remoteness.

In countries and districts where common interest, feelings of prejudice, or other circumstances have operated in binding men together through a succession of

ages in isolated communities, this disposition is especially observable: the clans of Scotland for instance, until a very recent period, were not more distinguishable by the badges which they bore, than by their peculiar physiognomy in limb and feature.[1] And notwithstanding the free intermingling of families and the unlimited commercial intercourse which has taken place between the Scotch and English during the past two centuries, there still exists a broad national distinction, both as regards their physical and their psychical attributes. The same remark will apply to the native Irish; and yet the three kingdoms, taken as a people, are as dissimilar from those of continental nations as they are found to be severally one from another.

The points of difference distinguishing tribes or races of men inhabiting contiguous countries, as those of England and Scotland, however great the contrast may appear to be in districts remotely situated, cut off by distance, geographical obstacles, or political restrictions, from frequent social intercommunication, become softened down and assimilated in the bordering states, where the distinction is often with difficulty recognized. The observation is applicable even to the larger and more prominently marked divisions of the human family. Thus the characteristics of the European and the Asiatic are not less striking from their similarity in those inhabiting the confines of these two great terrestrial divisions, than from the high contrast of those more distantly located, as the Frank of Central Europe and the broad-faced Tartar; yet is the gradation from one to the other so gentle as to be scarcely perceived. The same gradual change is observable throughout,—varying

[1] See Scott, Hume, Robertson, *passim*.

with the geographical position, until we arrive at the extreme point of physical dissimilarity—from the sallow Malay to the olive Nubian and the swarthy Moor, thence to the dusky Arab, and even onward to the negro of Benin and Biafra. "When we go to the enumeration of particulars we find, in the first place, in the colour of the human races, no room for hesitation or doubt, as to the propriety of referring all the varieties which are known to variation from one stock. The white and the black-haired, and the intermediate xanthous races, find their counter-part and representative in most tribes of domestic animals. Even in the more minute and less obvious peculiarities of organization connected with the different complexions of mankind, the analysis still holds good."[1]

The development of those peculiarities which serve to distinguish the different races of mankind from each other, commenced doubtless with their dispersion over the surface of the globe, and their subsequent isolation as independent communities. After a time, laws would be enacted and political and ethical codes instituted of a kind to meet the exigences of each particular state, suited to the genius of the people, to the preservation of their rights and privileges; influenced also by their geological resources, and, in some measure, by the customs and behaviour of contiguous tribes. Instances, in illustration, appear in the individuals detached from the line of the Jewish patriarchs, who, through a fertile and widely-spread genealogy, commencing with Ishmael, Esau, and others, were at length multiplied into vast and powerful communities, possessing, after a series of generations, the characteristics of distinct races. That such results should

[1] Pritchard's *Physical History of Mankind*, vol. i. p. 372.

accrue under the aforenamed influences, is every way in accordance with the laws of human physiology.

It is by no means unreasonable to suppose that races, now the most widely dissimilar, may owe their distinguishing characteristics to time and circumstances, and that, as the divergence has been constantly widening, so their approximation may be supposed to have been much nearer in ages gone by. We certainly have no records of antique date, of that high contrast between races which is now known to exist between the African and European. We sometimes witness, among children of the same parentage, dissimilarities both in physical conformation and mental tendency so remarkable that two of the same household might be taken as specimens of different tribes; and it was probably from such as these that the distinctions we now see had their origin. An example may be taken from Scripture history. Although the offspring of the same parentage, what could be more widely dissimilar in temperament and inclination, according to the Mosaic records, than the twin issue of the father of Israel? Their subsequent isolation and consequent limitation of intermarriage within a narrow sphere, restricted even, in some instances, to members of the same family, would all tend to exaggerate the salient traits of their respective ancestors.

But the issue of such a state of things, however promising it might appear to be for a time, could not be favourable in the sequel. Setting aside the moral evils likely thence to arise, such as the facilities afforded for contracting early marriages, and for perpetrating illegitimate intercourse, it is generally admitted that such alliances, often and indiscriminately repeated, tend inevitably to the deterioration of the race. I am aware that

this doctrine has been strongly opposed; but the results of observation go to substantiate what is here advanced. Indeed, a very little reflection will suffice to show, that a particular temperament or disposition, prominently developed, and especially if existing simultaneously in both husband and wife, will be likely to be reproduced, still further exaggerated, in the offspring, and thus that healthy balance, so necessary to the harmonious discharge of the nervous and circulatory functions, is at length destroyed, merging itself in incapability and disease. It is not improbable that a succession of evils arising in this manner necessitated the enactment of that portion of the Levitical code which prohibits intermarriage within certain degrees of kindred,—a law which has been respected, with tolerable exactness, in most civilized countries to the present day.

"Parents live again in their offspring."[1] In physical aptitude and in mental power and tendency, "in complexion and the shape of nature," children resemble their progenitors, as a general rule, in a remarkable manner. The salient points of a strongly-marked character, whether derived hereditarily or existing as a connate variety, unfolded and invigorated by favouring influences, are renewed and strengthened in succeeding generations, becoming at length the distinguishing attributes, difficult to be effaced in after time, of a numerous progeny.

Those several divisions of the human family which have been classified as *races*, are distinguished by fundamental peculiarities of organization, which are broadly delineated, and which, to a certain degree, may be said to be persistent. But, in each of them, varieties are

[1] Gregorii *Consp. Med. Theor.* l. i. p. 16.

constantly springing up which in some instances appear to be referrible to dissimilarity in the physical constitutions of the parents or their ancestors, or to influences of a moral nature; in others it is more difficult to assign a reason for such deviation. These diversities, however, known as temperaments, when not resulting from intermixture of different races, are, generally speaking, unacccompanied by any change of structure calculated to alter the primitive character of the tribe.

In a body, to whatever caste belonging, well constistituted, its organs and parts fully and proportionately developed, being in perfect health, and springing from a line of healthy ancestors, the various organs are found to be in the precise proportion best suited for the comfortable and uninterrupted discharge, through the longest permitted period, of all the functions of life. To this state of the system the ancients, at first, applied the word *temperament*, signifying that the component parts of the body were temperately blended and healthily balanced. This is what Adelon denominates the *tempérament tempéré, ou parfait.* Afterwards, however, the word temperament had a much wider, and even a different signification. It was used to denote certain peculiarities of organization, consisting principally in some inequality of development of the vital organs, associated with corresponding physiognomical manifestations which, although consistent, under a suitably regulated hygiene, with perfect health and longevity, were yet sufficient to create a predisposition to particular forms of disease in preference to others. These several conditions are characterised by disproportionate development of some of the central organs, or of the osseous, the muscular, the circulatory, the nervous, or the lymphatic systems; and by

the tendencies and capabilities of the faculties of the mind. A strongly marked temperament is often noticed in certain families, and may predominate through its various ramifications to a remote extent, undergoing but little alteration even by varied matrimonial alliances. Sometimes it pervades a whole clan or isolated community, and thus may end in the production of a distinct race.

There exists, moreover, in each person, another peculiarity which serves to distinguish him individually from others of even the same family, and apparently of the same temperament. This, which consists also in some diversity of proportional organization, is denominated an *idiosyncrasy*.

Diathesis has reference to an exaggerated temperament or idiosyncrasy, or to a morbid state of the circulating fluid; and signifies a more or less permanent susceptibility to disease of some particular nature: it may be regarded indeed as disease in a latent form. Thus we speak of the gouty, the rheumatic, the scrofulous, the syphilitic diathesis, although the disease specified be not manifest at the time.

Any two races, however widely dissimilar, as merely different forms of a species, are capable of fruitful union. The character of the offspring will be in accordance with that of the parentage.

The mostese or mulatto is the offspring of a negro and European woman, or of a white man and a negress. The skin is of a yellow colour, the hair frizzled or woolly, but the general appearance is more that of the European than the African. It occasionally happens, however, especially if the complexion of the European be very light, or of the xanthous caste, that the child resembles

that of one parent, and seems to derive no peculiarity, or that only to a limited extent, from the other. A case of this kind is related by Dr. Parsons, where a child of parents of opposite colours had different parts of his body of different complexions. The father, a black, was servant to a gentleman residing in the neighbourhood of Gray's Inn; his wife an European of light complexion, in service in the same family. When she proved with child, he took a lodging for her in Gray's Inn Lane. She was in due time delivered of a female child, who was as fair to look at as one born of white parents, and the features were very like those of her mother. The husband, who happened at the time of this occurrence to be absent with his master, and did not return until twelve days after his wife's accouchement, was very much disturbed at the appearance of the child, and said it was not his; but the nurse who was in attendance, soon satisfied him to the contrary, for she undressed the child, and showed him its right hip and thigh, which were as black as the father, and this reconciled him immediately to both mother and child.[1] Dr. Parsons saw the parties in the spring of 1747.

But instances are sometimes met with where the intermingling of opposite races is so complete that the original traits become, in process of time, almost annihilated. I am in the habit of seeing a family of children whose great-grandfather was a negro. He married an English woman, of the melanose complexion, and the offspring were mulattos. In the fourth generation the issue bear but slight resemblance to their paternal progenitor. The thick lip and projecting alveoli are no longer seen; they have well-proportioned features, and were it not for the

[1] *Phil. Trans.* v. 55.

very black and coarse wavy hair which they possess, but which is rather ornamental than otherwise, they might pass for Europeans. Many of the native English are quite as swarthy as they.

The reappearance of ancestral peculiarities several generations after they have been entirely absent, is a fact well known to physiologists. Dr. Pritchard relates the history of such an occurrence. A negro married a woman of his own tribe in Virginia. She brought forth a child who was as fair as an European. There could be no possible suspicion of improper intercourse on the part of the wife. The husband's father was of the same light complexion, but born of black parents, and it is stated that for many generations a white child had occasionally appeared in the same family, although it was not remembered that any white man had ever been seen amongst them. I find a similar circumstance related by Mr. Wafer in his *Account of the Isthmus of America.* It appears that among the copper-coloured Indians inhabiting the region about the Isthmus of Darien, the birth of an albino child of dark parents is occasionally seen. This white person is very different however from the European albino. The skin is milk-white, beset all over, more or less, with a short, fine, milk-white down. The hair of their eyebrows and of their heads is also milk-white, very fine in texture, about six or eight inches long, and a little curly. The palpebral fissure is crescentic or arched, with the points downwards. They see badly by day, but well at night, especially by moonlight. They occur of both sexes, and there seems to be one to every two or three hundred people. They are less powerful, as to physical strength, than their dark brethren, and generally lower in stature, and shorter-lived. They

are very unlike Europeans, and the offspring of one of them and an European is mostese or mulattos. It appears also that the progeny of these singular people, even when both parents happen to be of the white variety, are always copper-coloured.[1]

It is not improbable that the occurrence of these varieties is due to a former intermixture.

It is a singular fact, and one for which it may perhaps be difficult to render a satisfactory reason, that there exists less tendency to a harmonious blending of constitutional organization, as regards its transmission, when the parents, both of the same race, are different from each other in temperament only, than when belonging to distinct races, even though these should be the most widely dissimilar. The modification as seen in the mulatto, the offspring of the European and African, occurs as a general rule, so general indeed that there are only occasional exceptions; whereas, a similar intermixture in the offspring of parents of the same race, of the melanose and xanthous complexion—the brunette and blond, respectively, is the exception. "In cases of intermarriage between a dark-haired and one of an opposite, or xanthous variety," observes Dr. Pritchard, "the complexion of the offspring is seldom intermediate, but resembles that of one of the parents, for the most part that of the father."[2] In some instances, however, a modification participating of both is observed. But this mixture does not always appear in form of a half-caste of the two parents; more frequently it consists in the implantation of one or of several organic peculiarities of one parent upon a constitution resembling in its general features that of the other. Instances of the following kind, for

[1] Wafer's *Account of the Isthmus of America*, 1669. [2] Op. cit.

example, are of no very rare occurrence. A lady of my acquaintance has one eye of a light grey colour, the other a dark hazel. She has also a tuft of very light hair growing on the summit of the head, in the midst of a luxuriant crop of a dark-brown colour, and the two sides of the face differ also in complexional hue. These correspond with the complexions of the parents, of whom the mother was very light and the father dark. In another instance, the hair of one eyebrow is light, that of the other black, representing similar varieties in the parents. In a brother and sister, remarkably alike in temperament and the general expression of the features, the first, like his father, has a remarkably prominent nose, while that of the girl is as remarkably small and depressed, in close resemblance to that feature in the mother. Cases of this description might be cited in great numbers.

Organic deficiencies and irregularities, no matter how produced in the parent—whether by accident or existing from birth—are liable to be revived in the offspring. Dr. Watson, speaking on this subject, has alluded to the American calculating boy, Zerah Colburn. A great number of individuals of this boy's family, descended from a common ancestor, had six toes and six fingers instead of five on each limb. The peculiarity was transmitted through four generations, and probably, could his pedigree have been further traced, through many more. "I am myself acquainted," says Dr. Watson, "with a gentleman who had the misfortune, some years ago, to have a bastard child laid to his charge. At first he had some misgivings on the subject, and suspected that he might have no real title to the credit (or I should rather say discredit) of the imputed paternity; but all his scruples were satisfied when he found that the child had

six fingers on each hand; for he had himself possessed two small supernumerary fingers, which had been amputated when he was an infant."[1]

The existence of well-grown teeth in children at the time of birth is of rare occurrence. We have a royal instance on record of this kind of precocity; but Nature in her operations is no respecter of persons, and is equally liberal in her bequeathments to the subject and the sovereign. A few weeks since (in 1851) I was applied to by a nurse bearing in her arms an infant four days old who had in the lower jaw two incisor teeth, which she requested to have extracted. At first I said there seemed no necessity for removing them, and, as they were well-grown, being at least two lines elevated above the level of the gum, I told her it was a fortunate circumstance that they had come forth with so little disturbance. She informed me, however, that the mother's first child (this being the second) had a similar congenital dentition, and in consequence of the teeth having, in that child, inflicted a deep-seated ulceration on the under-surface of the tongue, by pressure in sucking, and that in the present instance considerable inconvenience had already begun to arise, which, on examination, I found to be true, her request was immediately complied with. I was afterwards informed that the mother of this child had been the subject of a similar congenital irregularity.

Strabismus, club foot, disproportional development of the two sides of the body, and a multitude of other peculiarities and irregularities, are amenable to the same rule. I am attending an infant who has the left side of the head much larger than the right. His brother, who died under my notice at the age of three years, had the same

[1] Lectures on Medicine, *Med. Gaz.* 1840, p. 232.

kind of disproportion of the head. It existed, as in the living infant, at birth, and I thought the head would become symmetrical, but it did not. His paternal uncle, a man of singular propensities, has the same conformation.

The law of hereditary transmission has been recognized by writers from an early period. We read in Tacitus, in his history of the manners and customs of the Germans —a people remarkable in his day for their virtuous lives and athletic frames, that "the large limbs and muscular forms of the parents were expressed in the shape of their children."[1] The subject has been dwelt upon by Horace and Lucretius, and Hippocrates had previously noticed it at some length, and appears to have been fully aware of the difficulty to change the nature of the transmitted peculiarity, especially when the tendency was to the reproduction of disease.[2]

Of modern writers who have contributed to the elucidation of this subject, Mercatus was one of the earliest. This author, who had evidently paid great attention to the nature and properties of such affections as are susceptible of hereditary continuation, arrived at the conclusion that the quality, character, form, structure, proportion or disproportion, or any preternatural condition, whether of a single member or organ, or existing in several parts,

[1] Quoted by Dr. Trotter in his work on the Nervous Temperament, p. 21.

[2] The passage in Hippocrates relating to this subject is the following:—"Ex pituitoso, pituitosus, ex biloso, bilosus gignitur, ut ex tabido tabidus et ex lienoso lienosus; quid prohibet ut cujus pater et mater hoc morbo correpti fuerint, etiam posteriorum ac nepotum aliquis eo corripiatur; semen etiam genitale ab omnibus corporis partibus procedit, a sanis sanum, a morbosis morbosum."—*De Morbo Sacro.*

appearing in the offspring, had their origin in the parents, the grandparents, or the great-grandparents; and that such irregularities or defects were similar in their nature, form, and locality, to those which had pre-existed in their ancestors: that Nature employed the same instrumentality in transmitting them, whatever the mode of their origination may have been, and that a father begets children similar to himself, and fouled with like blemishes.[1]

The preceding observations are accordant with what has been contributed by writers of more recent date, of whom, however, with some few exceptions, the records of medicine furnish but a very defective display. Portal, who wrote more than a century and a half after the publication of Mercatus's article, has treated the subject with great judgment, though not very elaborately: his essay, however, is still one of the most valuable contributions we possess on the nature and treatment of this class of diseases. "We find," says this author (quoting from Montaigne), "that not only are the marks of the body transmitted from father to son, but also a resemblance of temper, complexion, and imitations of the mind."[2] Another writer of the same period has some remarks of a

[1] "Circa primum, naturam hereditarii affectus genuina diffinitione patefacere studui. Quippe nil alius est quam qualitas, character, sigillatio, modus substantiæ, proportio quædam aut disproportio vel impressis præter naturam in uno pluribus aut omnibus membris geniti impressa, a sui ortu ex vi seminis parentum, avorum aut proavorum a simili affectu in eorum, aliquo membro aut membris præter naturam quoque præexistente: quo veluti instrumento natura, vel causa alia utitur, ut natos sibi similes gignat et eadem labe fædatos."—Mercatus, *De Morbis Hereditariis*, 1619, t. ii. p. 669.

[2] On the Nature and Transmission of some Hereditary Diseases, translated in the *Medical Journal*, vol. xxi. p. 329.

like nature, which Portal has transcribed: "Mores ingenerantur a stirpe generis."[1] Boerhaave has noticed the subject at some length, and seems to have been cognizant of the fact, that peculiarities were not only continued from father to son, but also that a particular trait of character, or morbid tendency, may lie dormant during one generation and reappear in the third, or subsequently: "Silente sæpe morbo in genitore dum ex avo derivatur in nepotem."[2]

The occasional alternation here referred to, denominated Atavism, is not of rare occurrence: a father, that is to say, transmits to his child the diseases, or the tendencies thereto, of its grandfather or great-grandfather, but from all ordinary manifestations of which, the father himself is free. The deviation sometimes consists in the supplanting of one disease by another of a different kind in alternate generations, and now and then we see instances where, from no apparent cause, the constitutional type becomes completely and fundamentally changed. Such seeming interruptions or occasional transformations are probably referrible to the operations of the maternal system upon that of the child within her. This subject has been referred to by Aristotle, as may be gathered from the following quotation from his article *De Generatione Animalium:*—"Natura mulieris vim plurimam habet ad immutandum in melius vel deterius rationem conceptus."[3] "While we find cause," says Dr. Holland, "of wonder at the extraordinary transmission of resemblances from parent to offspring, we must admit the equal wonder that there should ever be devia-

[1] Baillon, *De Calculo.* [2] *De Curandis Morbis. Aphor.* 1075.
[3] Mercatus, *De Morb. Hered.* t. ii. p. 674.

tions from this likeness. The one is in reality as great a miracle to our understanding as the other."[1]

Admitting then, that peculiarities of healthy structure are, in accordance with certain physiological laws, liable to hereditary transmission, it cannot be matter of surprise that pathological conditions, which are, in many instances, mere exaggerations of such peculiarities, should be found to be in like manner subject to continuation, and even to further exaggeration *in transitu*.

It is tolerably certain that the condition most liable to reappear in the offspring is that disposition of organic arrangement which we denominate temperament; and the more prominently this is educed in the parent, and especially if both parents happen to possess the same caste, the more decidedly it may be expected to manifest itself, as a general rule, in the offspring. We find, for the most part, that in persons possessing that disproportionate development of organic structure constituting a well-marked temperament, those peculiar idiosyncrasies are met with which are ever ready to take on diseased action, and that such a state of the body is liable to be changed, under the operation of the most trivial causes, into what is called a diathesis—namely, a high susceptibility to disease of its particular kind. This state of things is brought about in various ways, as by ill-assorted marriages, by climate, occupation, disease, and other agencies, and is most frequently met with, consequently, in large and industrious communities.

In widely-spread rural districts, scantily sprinkled with small villages and hamlets, whose occupants are quietly engaged in agricultural pursuits, or in the opera-

[1] *Medical Notes and Reflections*, p. 14.

tions of domestic toil, there is an universal sameness of character, and this is said to prevail still more among savage tribes, in whom varieties of temperament scarcely exist. But in cities and large commercial towns, man becomes more the creature of circumstances; incentives to wealth and fame draw forth his talents and ingenuity to the utmost stretch, particular faculties are brought into operation, and exerted, with all the energies which he is able to summon, to a special purpose; at each step new passions and requirements are discovered, to which he gradually grows habituated, and thus he creates for himself a temperament very different from that which Nature originally gave him. Here the nervous system is eminently engaged in effecting that constitutional change which, in other instances, appears to arise from different causes. "The nervous is the grand system," says Dr. Fergusson, "which moves the whole machine, and on the state of the fibrous motions of this depends our physical and moral temperament, health, predisposition, and disease." [1]

There exists a popular and somewhat antique prejudice in favour of the doctrine which advocates the origin of peculiarities of structure and function, whether morbid or normal, in the fœtus during the term of its intra-uterine life, depending upon external impressions which operate on the system of the new creature through the imagination of its mother, or even where the impress is limited in its effects to merely physical inconvenience. Boerhaave, speaking of the causes of epilepsy, says that the tendency to this disease may be "born with one, from the imagination of the mother when she was pregnant, being shocked at the sight of a person in an epi-

[1] *Medical Journal*, vol. li. p. 198.

leptic fit."[1] However sceptical medical men may be on this subject,—and the idea has been not a little ridiculed by many as absurd and altogether imaginary,—I am not ashamed to confess my belief in the occasional origination of deformity and disease through this medium. My conviction is founded upon cases bearing especially upon this point, similar in character to the following.

I attended a person in her first confinement, residing in the village of R——, in January, 1841, and with whom I had been previously unacquainted. Immediately after delivery she anxiously enquired if the child's eyes were perfect. On being pacified, in the hurry of the moment, by the assurance that these organs seemed to be perfect, she confessed that she had felt foolishly apprehensive about the eyes of her infant, in consequence of having so constantly grieved, during her pregnancy, about her eldest sister's child, who happened to have congenital blindness of the left eye. At first I felt inclined to smile at this fancy, for on a very superficial examination I had not discovered any defect; but having, at a more convenient period, leisurely inspected these organs, I found that the left eye was much smaller in size than the other, and very vascular. The vascularity, in the course of a few weeks, disappeared, and its functional power seemed complete, although it remained, at the age of seven years, smaller than the other. Her second delivery took place on the 16th of March, 1843, when the same apprehensions were entertained by the patient on this occasion also, her imagination having been influenced by the defective state of the left eye of her first child. In this instance the *left* eye of the infant was a mere homogeneous globe of matter, very small,

[1] *Aphor.* 1095.

and completely useless. A similar state of dread existed on the occasion of her third delivery, which took place March 27th, 1846. In this instance the *left* eye was disproportionately small and bloodshot, but is now of some service, although the cornea is slightly opaque, which defect has continued to decrease since infancy. Her fourth child, born August 19th, 1847, is completely dark of the *left* eye; her fifth, born December 31st, 1849, has also the *left* eye small and defective like that of the first and third. Thus, of five children, born at the full term of utero-gestation, each as remarkable for plumpness and vigour as the mother is for a well-developed frame and robust health, the first, third, and fifth of her children had defective development of the *left* eye, amounting in one to deformity; and the second and fourth had complete loss of vision of the same side. There had been no such defect in any other members of her family, so far as she and her mother knew, except the child of her sister before-mentioned. The mother unhesitatingly attributes the accident in each case to the effects of apprehension with which she was constantly haunted during pregnancy, feeling always certain in her own mind that the child she bore would be defective in vision.

A young wife named T——, patient of St. Mary's Hospital, presented herself January 12th, 1846, being in the sixth month of her fourth pregnancy. Her first two children were born alive at full term and survive; the third pregnancy terminated abortively at six months, and she had already had reasons to apprehend a similar result in the present instance. A few weeks afterwards, while I was engaged in operating upon an infant with double hare-lip, the screams of the little patient brought

the woman T——, who was in attendance, and happened to be the next in rotation to be prescribed for, round the table to see what was being done. On obtaining a full view of the deformity in the child's face, she fainted, and was carried into an adjoining apartment. She was delivered at the full term of utero-gestation, on the 26th of April, of a well-grown female child, who had double hare-lip and cleft palate like the one she saw three months before. No such deformity had been previously known either in her family or in that of her husband.

The following case is in the same category with the preceding. A lady in reduced circumstances, had borne four healthy children at full term. She possessed a robust constitution, and was descended of a healthy stock, both as regards body and mind. Her husband and his family had been similarly favoured; but he, from being a faithful and affectionate companion, became dissipated and cruel. When five months advanced in her fifth pregnancy, the unkindness she received from her husband threw her into a state of great mental distress and despondency, during the prevalence of which she attempted to destroy herself by drowning, but was opportunely rescued. She was delivered at the full term of utero-gestation of a boy, who survives, but who is completely imbecile. She then bore a female child, who also survives and is perfectly healthy. She had then an abortion in the fourth month, and died nine months afterwards of malignant disease of the uterus. Neither idiotcy nor malignant disease had been previously known in the family of either parent.

But, that powerful impressions operating upon the mother are capable of producing corresponding effects upon the fœtus in utero, independently of the imagina-

tive faculty, seems evident from the following case. A woman of strong mind, in competent circumstances, thirty-two years of age, and in the seventh month of her sixth pregnancy, had occasion to visit the shop of a grocer, and while she was in the act of delivering her orders, a heavy weight fell upon the instep of her left foot. She was in great pain, and being unable to walk, was immediately carried home in a conveyance. Whilst sitting with the injured limb in a foot-bath, she felt a sudden and violent struggle within her, followed on the instant by a plentiful escape of water per vaginam, which was the liquor amnii. She was placed in bed, and a medical man sent for, who, finding the pains of labour strong and frequent, and a foot of the fœtus already low down, proceeded to deliver. The child, a female, was puny, but alive and apparently healthy. Its left foot, which had been the first to present, was found to be firmly contracted towards the inner aspect of the limb, the heel being raised and the solœi muscles rigid and unyielding. This state of parts continuing, the foot was forcibly brought into its natural position and there maintained by means of a bandage, and thus its use and symmetry were eventually restored. After some ineffectual efforts to bring away the placenta, the abdomen was examined, and it was found that another child remained in the uterus, the birth of which was hourly and daily waited for. In the course of ten days, no indications of labour coming on, the patient was sufficiently recovered to attend to her household duties, and continued to do so until the completion of the natural term of pregnancy, when she was safely delivered of a full-grown male child in vigorous health. This event happened precisely sixty-five days after the preceding birth.

No milk appeared in the breasts until after the second birth, when she was enabled to nurse both children. The twins are still living and in perfect health. It can scarcely be doubted that the agony endured by the mother had the effect of producing, by sympathetic agency, spasmodic action of the leg-muscles of the fœtus, and that by the sudden movement thus caused the membranes were ruptured and labour induced.[1]

Occurrences like the preceding possess undoubtedly an important practical bearing. That the subject has not

[1] The author of *Waverley*, as the reader will doubtless remember, has a curious legend belonging to the period of the Bruce-Baliol contentions, which serves to show the tone of popular belief in North Britain in earlier times. It refers to a physiognomical trait which was said to characterise the Red Gauntlet family, of whom all the males had the imprint of a horseshoe on their forehead. This is said to have been first seen in a son, prematurely born, of the implacable Sir Alberick, whose horse had caused the death of an only son by striking him on the forehead with his hind foot. Some time after, the mother, then far advanced in pregnancy, hearing of the catastrophe, was seized with the pains of labour, and died, giving birth to a boy, who, "by the mysterious law of nature," had the imprint of a horse's shoe, in miniature, on his forehead.

The great novelist introduces us, after the lapse of several centuries, to a string of the descendants of this infant, who, it appears, transmitted the impress unaltered. One of these, Sir Robert, who, it would seem, was as greedy of siller as his ancestors had been of military fame, in an altercation which he had occasion to hold with his tenant, farmer Steenie, about arrears of rent, got into a towering passion, and then appeared to the quailing eyes of the farmer that fearful physical trait which had characterised the family since the days of Sir Alberick. "Ye maun ken (said Steenie, in his narration of this scene) he had a way of bending his brows, that men saw the visible mark of a horseshoe in his forehead, deep dinted, as if it had been stamped there." But Steenie and his listeners seemed to opine that this horseshoe, or hoof-mark, or whatever it might be, had had its origin from a source of more questionable respectability than that mentioned.

hitherto received that degree of consideration which its value demands is quite certain, and may possibly be accounted for from the mixture of the marvellous with which accounts of such character, when related by the unlettered, are commonly interlarded, and their consequent rejection altogether as unworthy the serious attention of scientific men. The opportunities of observation which every medical practitioner possesses would, with due care and patience, enable him to separate the rational from the absurd, and to refine the matter down to its intrinsic worth.

Dr. Adams seemed to think that connate deficiencies like those above mentioned are seldom continued hereditarily. I am acquainted with instances which prove that this rule is not without exception, of which the following is one in point. A lady, with whose family I was on terms of intimacy from childhood, had congenital blindness of one eye. The cornea was white and completely opaque, and the globe of the defective eye was much smaller than that of the other. Each of her two sons, her only offspring, was dark from birth of the corresponding eye, the defect being similar, in outward appearance, to that in the mother. They were both educated to the medical profession, and both died of consumption before the completion of their studies.

But, whether derived congenitally or by some accidental infliction in after life, a defective state of parts is liable to exert an influence on the offspring. Thus in an instance related to me, a father of three healthy and properly-formed children, received an injury in a coal-mine, in consequence of which he lost a limb. The next child which his wife bore had shortening and defective power in the corresponding limb. Whether this be attributable

to the agency of some mysterious impress made upon the generative faculty in him, or to the operations of the mother's imagination, it may be difficult to decide. These, with many other irregularities and defects of organization, are liable constantly to occur in any family and under any circumstances. They are more liable however to be repeated in the offspring of those in whom such conformation has previously existed, but their appearance without any assignable cause of any description are facts of which we have daily exemplification. Hereditary diseases must doubtless be regarded as part of the natural constitution, and thus they differ from those recently acquired; but an acquired disease may become habitual, and so be liable to perpetuation.[1]

The diseases most liable to hereditary continuation form a numerous class; they seldom present any indications of their existence at birth, but are hereditary in predisposition only.[2] The conditions necessary, however, to their development, whether dependent upon the nature of the blood or upon organic peculiarity, are connate; and it would appear that the natural power of reparation or readjustment almost invariably yields to the growing predominance of the innate morbid tendency, as the augmentation of the latter takes place in a ratio greater than

[1] "Omnis morbus hereditarius est in habitu, non contracto per assuitudinem, sit per nativam constitutionem: sed habitus per assuitudinem adquisitus transit in naturam, quæ difficulter removeter."—Mercati, *Op. cit.* p. 675.

[2] I deem it unnecessary to distinguish between the meanings of the words *disposition* and *predisposition*, as insisted upon by Dr. Adams, although these terms will be respectively used as occasion may require. *Connate* and *connutrite* are terms whose application is sufficiently understood.

that of healthy development. There are some exceptions to the above rule. Hydrocephalus, for instance, sometimes exists at birth in cases where an hereditary tendency to this disease previously prevailed. Instances of connate tubercular disease are on record; and in cases of hereditary asthma, though the actual symptoms be wanting, the peculiar thoracic conformation is characteristic, even in the infant at birth. Secondary syphilis is sometimes congenital, when its origin has taken place in the parents of the child, and should this be imperfectly cured in the infant, it becomes constitutional and liable to continuation; gradually assuming other types, those for instance of chronic impetiginous and other forms of cutaneous diseases, and varieties of scrofulosis.

Hereditary affections appear to be susceptible of arrangement, as regards their mode of origin, under two heads, sufficiently distinct the one from the other: those, namely, which are induced by faulty habit, the influences of climate, ill-assorted marriages, and other extraneous agencies; and those which result from the introduction of a morbid poison into the system. But in whichsoever of these ways brought about, when they have once become so far constitutional as to be capable of hereditary continuation, they resemble each other in one essential particular: that is to say, the blood and the secretions are found to exhibit certain deviations, often appreciable by chemical and microscopical analysis, from the healthy state, as regards the proportional constituents of these fluids.

The intention of the present inquiry is to investigate the phenomena of one of the last-named class of agencies—morbid poisons; but it will be desirable first of all to mention, as briefly as possible, the conditions com-

monly attendant upon those of the first class. Such procedure may serve the purpose of indicating the line of demarcation between the two groups respectively.

The blood, a compound fluid, distinguished into two principles, a liquid and a solid constituent, consists of water, in the proportion of 790 parts in 1000; the remaining 210 represent the quantity of solids (Lecanu). Andral's results give, water 800, solids 200. Other analysts have fixed the average at a medium point between these two extremes, namely, water 795, solids 205, or thereabout. This refers to healthy blood.

The solid constituents are divisible into three classes: nitrogenized, non-nitrogenized, and saline substances, each subdivisible into a number of elements. The nitrogenized agent, the protein constituent, consists of fibrin, albumen, and blood-globules; the non-nitrogenized, of oleaginous principles; the salts, of phosphates, sulphates, carbonates, lactates, urates and oleates of different bases, which it is needless here to specify.[1] The constituents of the blood, however, are subject to considerable variation, even in a state of health, both in different individuals, and in the same individual at different ages and seasons, and under a variety of circumstances connected with the mode of living, mental and bodily exercise, and climate. Under the influence of disease also the relative quantities become notably changed, and there are some instances wherein this change is made permanent and constitutional, according to the nature of the disease under which it has taken place, and the amount of organic mischief which may have been inflicted in the struggle. These alterations have reference, for the most part, to quantity merely.

[1] Simon, vol. i. p. 166.

The diseases usually considered as liable to hereditary transmission, are scrofula, rachitis, phthisis, cancer; mania, epilepsy, convulsions, apoplexy, paralysis, diseases of dentition; asthma, dropsy; gout, rheumatism, stone in the bladder; cataract, deafness, and other imperfections; syphilis, sycosis; quinsy, erysipelas, and perhaps others. But it is not in every case that we are to look for the same form of disease in the offspring which prevailed in the parent; the complaint, strongly marked in one parent, being not unfrequently modified by the influence of the other, or even altered altogether. "Has not the mother," remarks Portal, "during her pregnancy, an influence over the infant in her womb, either by assimilating it to herself in some measure by the nourishment she gives it, or by causing it to feel a part of the evils she herself experiences, and communicating some impressions resulting from these causes?" "Frequently also," he proceeds in another place, "hereditary diseases are supplanted by others. We have seen in one and the same family, one child maniacal, the other epileptic, while both died of apoplexy."[1] When diseases differ however in the child from those prevalent in the parent or parents, they yet participate in the properties of those of their progenitors.

Few diseases have received more attention than Scrofula, and yet, as regards its precise nature, the opinions of authors are far from being in unison. Two facts respecting it have, however, been clearly ascertained, namely, its hereditary continuation from parent to offspring to an extent not hitherto ascertained, and the altered state of the blood as demonstrated by analysis.

Respecting the first-named proposition, most men, whether medical or non-medical, are agreed; and this

[1] *Medical Journal*, vol. xxi. p. 230.

conviction obtains most strongly with those who possess the taint, however unwilling they may be to acknowledge their belief. It would be a work of supererogation to quote instances in illustration of this fact. Morbid manifestations of this class appear in infancy and childhood, in form of ophthalmia, mesenteric disease, affections of the superficial lymphatic glands, impetigo, &c.; in youth, under various forms of articular disease, glandular enlargements, obstinate skin affections, menstrual and other organic disturbances; in adult life, in form of phthisis, or that kind of cachexia popularly denominated *decline*, diseases of the bones, and a multitude of others; and, at a more advanced period, in loss of vision, cerebral affections, tumours, dropsy, cancer, &c., and, in the female sex, in uterine hypertrophy of a most intractable description, and extremely liable to malignant degeneration.

That the blood is altered in its properties under these circumstances is a fact founded on experiment, and hence a most important deduction in a therapeutical point of view. In cases of scrofula, the blood, according to Dubois, who carefully analysed it on several occasions, was found to be deficient in solid constituents, especially in fibrin and globulin, constituting a state of impoverishment. In the first place, there exists a low status of the vital powers, depending probably upon a want of that healthy stimulation which normal blood ought to communicate to organic tissue; in the next place, the assimilative organs appear to perform their functions inefficiently, so that the ingested aliment does not undergo that kind of conversion which is necessary to the wants of the system. The first is an immediate sequent upon the last-named condition.

The hereditary transmission of scrofula, says Guersant,

is one of its most common predisposing causes. A multitude of examples are daily occurring sufficient to prove the truth of this statement; and if we associate with it tubercular affections, we find that the transmission of these two forms of disease constitutes a fact as well established as any in the history of medicine. On carefully interrogating the patients as well as their parents, we constantly ascertain that one or more cases of scrofula, or phthisis, has existed among their ancestors, either on their father's or mother's side. We often see these two varieties, either conjoined or separate, alternating in one generation and another. It has even been known, that infants who have inherited the taint at birth, have died of the disease before their parents, who also have perished from the same cause at a later period. Yet all children born of parents so tainted are not necessarily its victims; because it is quite possible, and indeed it often happens, that the child possesses a vigorous constitution, altogether different from that of its parents.[1] The taint, when derived from the father, is often modified through the agency of the mother; and it is undoubtedly susceptible of a still more marked and permanent alteration by the employment of a young, sound, healthy nurse, of a temperament opposite in its nature to that of the afflicted parent, also by suitable hygienic regulations, and removal to a more genial climate. An instance of this desirable change, effected by the means here alluded to, was narrated at page 76 of my former publication, and it is gratifying to find, that after a series of years, this child retains the salutary influence conveyed to it in infancy through the milk of its foster-mother, this being the only healthy individual in the group.

[1] *Dic. de Med.*, art. Scrofule.

The opinion here expressed is in accordance with that of Portal. "The infant," says this author, "on coming into the world, may be very different from what it would have been had these causes [acquired diseases in the parents] not existed, which are, as it were, extraneous to it, and which make it to differ from its parents as to their primitive state of health, and make it resemble them in their diseases; and as the number and inveteracy of diseases increase as men advance in life, however strong and healthy they may have been originally, the children of old men are more subject to hereditary diseases, and their constitutions more feeble. The nursing of a child by its own mother, or by a strange nurse, may also produce other differences, more or less remarkable, with respect to its physical or moral constitution, but which will result in resemblance to its nurse."[1]

The age of the nurse also, as well as the period of lactation, are of no slight moment. A woman of advanced age does not always furnish a milk so nutritious in all its properties as that of her earlier years. So also, at an advanced period of lactation the milk becomes impoverished, and no longer sufficient, as a general rule, for the wants of a grown infant without the aid of additional food,—much less would it serve the purposes of nutrition for an infant during its early months. I have witnessed a striking example in illustration of this statement. A wet-nurse, remarkably strong and healthy, with an abundance of milk, suckled an infant from its birth. When this child had attained the age of eleven and a half months, its mother was delivered of her second child, and as the foster-nurse had still an abundant supply of milk, the first child was weaned, and she nursed the

[1] *Med. Journal*, vol. xxi. p. 230.

second to the age of thirteen or fourteen months. Although the first of these children was well developed and remarkably strong, having had an early and easy teething, with excellent physical proportions, and walked freely at thirteen months; the second, quite as promising in early infancy, at the age of thirteen months had a widely open and flattened skull, enlarged ankles and wrists, curved legs, late teething, and did not walk until the nineteenth or twentieth month. These evils and their cause—the impoverished breast-milk—were not detected until it was too late to prevent them.

The assimilative and nutritive functions become less vigorous as life advances, and entail corresponding conditions upon the offspring; and although the child born of a mother at the latter part of the child-bearing aptitude may be little less strong and healthy than that of her earlier years, so far as she is concerned; the same cannot always be said of the male parent, as the offspring of an aged father—unless he be remarkably vigorous naturally—is often delicate. So also the susceptibility to disease—to the reception of specific poisons at least—becomes altered; the young, with the absorbent and eliminative functions in full vigour, receiving into the system such influences more readily, and probably producing a *materies morbi* more potent in its virulence, than at a more advanced age.[1]

Scrofulous affections, or a tendency thereto, may be acquired in various ways, of which one of the most common is intemperance. But it appears from experiment,

[1] "Ex spirituum et caloris modo aut vitio: sic enim (ut dictum est) juvenes citius senibus hoc morbo corripiunter, quia calore abundant, quo citius sese in imas corporis partes venenum abscondit."—Lib. i. cap. 2, p. 632.

that it is not communicable in any other way than hereditarily. Our continental neighbours, who appear much bolder, and more persevering experimentalists than we, have tested this to a satisfactory extent. Besides having introduced the fluids of scrofulous persons in various forms—pus, serum, blood—into the circulation of animals by means of friction, inoculation, &c., the attempt has been made on the human subject also. Kortum introduced the matter of a scrofulous ulcer by means of friction upon the neck of a child during several days in succession; he inoculated it in another, and in a third applied it to an open wound situated upon the mastoid process. In all these the results were negative. Pinel at the hospital of Salpetrière, Alibert at that of St. Louis, Guersant and his colleagues at the Children's Hospital, in like manner, made the experiment and failed. This, probably, is an unerring law as regards all constitutional affections not due in the first instance to the agency of a morbid poison.

The tendency to rickets is doubtless, in many instances, due to morbid conditions, easily traceable, which existed in the parent—one or both. A remarkable instance of the kind, in a family enjoying affluent circumstances, has been under my notice during several years. The taint exists in the mother, a woman remarkably strong and energetic, of full habit of body, ruddy complexion, and in excellent health; but her bones and joints exhibit signs of the previously-existing malady. All her children —four in number—are rachitic, and two have died of hydrocephalus.

Rachitis has been usually considered as a form of scrofulosis, and up to the present time its alliance with this class of affections, by all authors on this subject, with one

or two exceptions, has not been questioned. Simon says of it:—"In scrofulosis of the osseous tissue, or rachitis, the urine varies very much in its composition from the normal type. These deviations principally consist in the diminution of urea and uric acid, and in the increase of the salts. The colour of the urine is generally either pale, or else it differs but little from the normal appearance; the free acid sometimes increases to an extraordinary degree, and some maintain that it is free phosphoric acid. This extraordinary and morbidly-increased capacity of the kidneys for the removal from the blood of those salts which are so essential for the structure of the osseous tissue, and the consequent tendency to the formation of calculi in rachitic children, is regarded by Walther as a vicarious act of the kidneys in connexion with the formation of bone."[1]

The identity, however, of rachitis and scrofulosis (including tuberculosis as a high degree of scrofula), as is inferred in the preceding quotation, is very questionable. Dr. Merei, in his work on *Developmental Disorders and Rickets*, states that of more than five hundred *post mortem* inspections of children, practised under his own eye in the Children's Hospital of Pesth, comprising a considerable proportion of rachitic subjects, not one instance of tubercular consumption occurred in a child having a high degree of rachitic spine or chest. He says that scrofulosis and tuberculosis *may* co-exist with rachitis; but that a high degree of rachitic compression of the chest—necessarily connected with over-carbonization of the blood—is a condition adverse to the development of pul-

[1] Simon, vol. ii. p. 264.

monary tubercles. The assertions, therefore, of Rokitansky on this subject seem to be correct. Dr. Merei's conclusion is, "that rachitism is a disease which may be associated with, but is distinct in its nature from, scrofulosis and tuberculosis."[1]

Intimately connected with this state of the system, as well as with that next to be noticed,—the gouty diathesis,—between which two it seems to form a connecting link, is that which predisposes to the formation of urinary calculi. The blood is generally found to contain an abundance of fibrin, and considerable increase of the saline constituents. That this condition is liable to be transmitted hereditarily cannot be doubted; it is found to prevail in those even who have been removed from the influences under which the disease was originally generated.

The gouty diathesis is undoubtedly hereditary in predisposition. It has not been hitherto known, I believe, that gout has ever manifested itself in infancy; but instances are on record wherein it has appeared in a decided form at an age when the usual exciting causes could have had no share whatever in its development. I was acquainted with a gentleman, lately dead, in whom it commenced at ten years of age, and returned periodically in its habitual form throughout life, although skilful measures of treatment were adopted from the onset. The taint was derived from his grandfather, who was for many years a great sufferer; his father escaped it altogether, although he endured repeated attacks of rheumatism; in his elder brother it broke out soon after the age of thirty. Both these brothers died suddenly of heart

[1] Dr. Merei on *Diseases of Infantile Development*, p. 195. London: Churchill, 1855.

disease. It seems singular, as Mercatus has remarked, that gout and other diseases which are evidently hereditary in predisposition, should not show themselves at birth, since the principle necessary to their development is undoubtedly present in the blood from the earliest age.[1]

The blood in those of the gouty diathesis is abnormally charged with fibrin. Its more characteristic change, however, consists in augmentation of some of the saline ingredients, lithic acid being eliminated in unusual abundance. During a paroxysm, this principle is either thrown off combined with the urine, or is deposited in the fibrous textures around the smaller joints in form of lithate of soda, known as chalk-stones. It sometimes concretes in the urinary bladder, forming the calculus peculiar to this state of the system.

The hereditary continuation of the malignant diathesis is a fact so well ascertained as to need no illustration. The earliest age at which it first manifests indications of its presence, as a general rule, is from twenty-five to thirty years. Some forms of it, however, appear at an earlier period; cancer of the eye, for instance, may develope itself in infancy; one form of malignant skin disease—epithelial cancer—is perhaps more frequently encountered in boyhood and youth than at a later period of life: that, namely, which has been termed chimney-sweeper's cancer. But in the majority of instances it is about the commencement of the latter stages of life—from the ages of forty-five to fifty-five—in both sexes, that the system begins to indicate its inability longer to conceal the accumulating load of inherited evil. Often

[1] Sed, mirabile dictu, qui fiat ut podagricus filius non protinus incidat in podagram, aut calculosum affectum, quem a patre accepit, sed transactis aliquibus annis.—*Op. cit.*, p. 671.

the infliction of some external injury, of so trifling a nature as scarcely to have produced a momentary disturbance in the serenity of a child's temper, will be sufficient to set in motion a series of disasters that shall not cease but with life. The slight blow or contusion, the situation of which had been lost or forgotten, will, after a length of time, reappear as a bruise or a tumour, and the localization of the constitutional taint is thus determined. In some cases it breaks forth without any accidental cause whatever, while in others the external phenomena are preceded by constitutional changes of a nature peculiar to this diathesis.

Although cancerous affections are so frequently the result of constitutional predisposition, there is yet no doubt that they are also daily rising *de novo*, no such predisposing cause having existed in the progenitors. Assuredly there has been a time when they had no existence. In fact, chimney-sweeper's cancer comes on in boys and young men, none of whose ancestors had been troubled with malignant affections of any kind: the disease is clearly attributable to the nature of their occupation. Again, cauliflower cancer of the uterus occurring in one derived from a healthy stock, is sometimes the result of a venereal affection, an example of which will be found in the following pages. And in some other forms of uterine disease, it is singular to witness how striking the similarity is between some which are often regarded as trivial in their nature, and others which are known to be malignant. I have had frequent opportunities of tracing the development of uterine disease supervening upon syphilis, commencing in shallow ulceration or abrasion, and ending, after a length of time, in hypertrophy and induration of the greater portion of its lower

section, accompanied with lancinating pains, exquisite tenderness under pressure, an angry-looking surface, occasional sanguinolent discharges, not always inodorous, and much constitutional disturbance. I have reasons for suspecting that schirrus in many cases owes its existence to the venereal poison.

The blood in this disease exhibits a remarkable deviation from the healthy state. In a case of cancer of the uterus occurring in a woman thirty-four years of age, the blood was analysed by Drs. Lenzberg and Morthier, and found to consist of water 832·35, solids 167·53, in 1000 parts. The quantity of fibrin in this specimen was singularly augmented, amounting to 16·44 per 1000. In another case, where the disease occupied the liver of a man fifty-three years of age, the proportions were, water 887·2, solids 112·8. In the latter instance the fibrin only slightly exceeded its normal amount. In both, however, the globulin was greatly deficient, scarcely surpassing the half of its normal quantity.[1]

Erysipelas is another disease, the tendency to which is continued from parent to offspring. It may occur at any period of life, but is most prevalent in adult age and subsequently. I am intimately acquainted with a family wherein it has prevailed under widely varying circumstances in four generations: each of these has been personally known to me. The paternal ancestor died at the age of seventy-three of angina pectoris. He had been remarkably healthy through life, with the single exception of periodical attacks of erysipelas of slight character, implicating the face and hands. His son, a medical man, now living at the age of seventy-four, has for the last thirty years suffered from a similar affection, which

[1] Simon, vol. i. pp. 284, 309.

has, on several occasions, assumed a threatening aspect. One of his sons died at the age of twenty-seven from erysipelas of the face and head, which terminated on the fifth day in cerebral effusion. Another son has repeatedly suffered in like manner, any slight scratch or wound of the skin being attended with inflammation of the surrounding surface to a considerable extent. A daughter of this father has had repeated attacks of the same troublesome affection in the lower extremities, which, on several occasions, has become phlegmonous, terminating in ulceration of an intractable character. So long as these ulcers remained open, the general health was in tolerable condition; but being healed, the powers of the system faltered, and sooner or later, another accession of erysipelas supervened, which almost invariably ended in like manner. Another daughter, forty years of age, who has hitherto escaped the disease altogether, was married to a man who died at the age of twenty-nine of tubercular phthisis. Two sons were the issue of this union, one of them being remarkably like the mother's family in constitution, the other inheriting all the physical traits of his father. The first, at the age of eighteen, had a most violent attack of erysipelas of the forehead, coming on without assignable cause, and which ended fatally by cerebral effusion on the third day.

Andral and Gavarret have analysed the blood of patients labouring under, or being susceptible of erysipelas, in five instances. In three of these the watery element was slightly in excess, but in one of the three, in whose case two analyses were made, the results varied, the watery element being in excess on one occasion, and in normal quantity on the other. In the two remaining instances the watery and solid constituents were healthily

proportional. In all the experiments, the fibrin was found to be greatly in excess, in some amounting to three times, and in none to less than twice the normal quantity. The globulin, although very variable, being generally below the average amount, appears to play no very important *rôle* in the pathological changes; but the saline ingredients were, in all the instances subjected to experiment, below the average.

The tendency to convulsive affections appears also to be hereditary in predisposition: it is noticed to prevail in families through many generations. And although apparently attributable to causes connected with the nervous centres, it seems also to be associated with certain alterations in the constitution of the blood. According to Heller, who made several analyses of the blood of a female patient, aged twenty years, the quantity of fibrin was increased to more than twice the normal amount.

Dropsy and asthma are diseases to which a predisposition is often transmitted through many generations. They are usually developed in the middle or latter periods of life, sometimes earlier, but rarely, when dependent upon this cause alone, in infancy. The conditions necessary to their evolution, whether depending upon peculiarity of organic structure, or upon some particular state of the blood, must exist at birth, as is shown by the external physical conformation, which is, for the most part, characteristic. They appear to be associated with an abnormal condition of the nervous centres, as well as with certain alterations in the proportional constituents of the blood-elements, even from the onset. The state of the circulating fluid is found to be changed in the latter stages of these complaints, consisting apparently

in a peculiar disposition to dissociation of their solid and fluid constituents. The first seems to belong to the class of diseases depending upon a state of dyscinesia, the latter to that of cyanosis.

When the development of any organ, especially if largely pronounced at birth, is favoured by a combination of circumstances through successive generations, a point of exaggeration is at length attained which is inconsistent with the harmonious and healthful discharge of its functions. This observation is especially applicable to the brain and nervous system. Some families, for instance, are remarkable for large heads and powerful intellectual faculties, between which a physiological relation doubtless exists; although it does not always happen, as an organic sequence, that high intellectual power is invariably associated with a large cranial development. "Individuals are observed," says a recent author,[1] "remarkable for their mental qualifications, and actual attainments, whose frontal development is yet inferior to some others, ranking below them in intellectual dignity. And again, we shall meet with persons with large foreheads, whose education has been in no respect deficient, and yet who never, in point of actual efficiency, attain to more than a respectable mediocrity—who never display the talents, or obtain the distinction, of many inferior to them in cerebral development and extraneous advantages."

The offspring of parents, both possessing great intellectual capacities, are liable to inherit such endowments in still greater proportion; but along with this refinement, so to speak, of the cerebral faculties, is usually conjoined a degree of physical delicacy, or of

[1] Noble on the Brain, p. 368, 1846.

disproportionate development, which constantly endangers organic integrity; and the peril is further increased if education be urged, in early life, beyond a certain limit. The mind which seemed capable of comprehending intuitively the most abstract problem, is soon shaken and unbalanced, merging at length in inanity. How short a stride may sometimes compass the space between high intelligence, and no intelligence at all! One is here reminded of the fox in the fable, turning over the tragedian's mask, and exclaiming,—

"How vast a head is here without a brain!"[1]

The hereditary tendency to insanity appears to be so general, that it has not escaped the notice of any author who has written on mental pathology. The disposition appears to be more strongly marked among the rich than the poor. Of 321 insane persons admitted into the hospital of Salpétrière, at Paris, 105, or nearly one third, were the offspring of parents similarly affected; and of 264 patients from among the rich classes, 150, or more than one half, were cases having an hereditary derivation. This difference (remarks Georget) in favour of the poor classes, has its origin in the prejudices which the rich, and especially titled families, entertain in favour of matrimonial alliances among their own members—between such as are nearly allied by blood-relationship, regardless of particular predispositions and habits.[2]

The causes of insanity are very various. In a table arranged by Esquirol and quoted by Georget, containing 509 cases, 255 seemed to have a purely hereditary origin; the remaining 254 are said to have supervened upon the

[1] "O quanta species, inquit, ast cerebrum non habet."—*Phædrus.*

[2] *Dict. de Med.*, art. Folie.—*Georget.*

following conditions: menstrual derangement, 74; the last climacterical change, 38; accouchement, 73; syphilis, 9; worms in the intestines, 28; improper use of mercury, 32. I cannot help thinking, that the causes above named have been imperfectly ascertained, inasmuch as the influences most powerfully operative, in this country at least, are not noticed. These are, intemperate habits, anxiety about business affairs, religious fanaticism, frustrated ambition, disappointments in love, misplaced affection, and probably many others. With respect to the first-named of these, Cox remarks, that nothing is more common than to see the offspring of an intemperate parent become demented.[1] Dr. Adams also expresses a similar opinion. "I shall therefore," says this author, "offer only one remark on this subject, viz., that women who are habitual drunkards, generally produce immature or idiot children." "But," he adds, "this is by no means a proof that the failings of the mother have been in every instance the cause."[2]

It is needless to say that, wherever the tendency is known to exist, all these exciting causes should be scrupulously avoided.

It is a singular circumstance, and one worthy of being mentioned, that in families predisposed to insanity, there appears to exist a susceptibility to obliteration of one or other of the sensorial faculties. Thus, in the offspring of demented parents—one or both being affected, one child may be born deaf, or blind, or otherwise defective, and this child will retain the mental faculties in a state of integrity, and even of vigour; while some of the others, perfect in these respects, have inherited weakness

[1] *Diss. de Manîâ*, Leyden, 1787.

[2] *On the Hereditary Properties of Diseases*, p. 62.

of intellect. But deafness, as it occurs in the ordinary way, is not so certainly hereditary as many other defects of organization. It must therefore be regarded in the light of a congenital deprivation, the cause of which is not clearly accounted for. Of one hundred and forty-eight scholars upon the foundation of one of the Deaf and Dumb Institutions in London, one was of a family wherein there were five persons, himself included, afflicted with the same defect; one where there were four; eleven where there were three; and nineteen where there were two in each. Of these, fifty-seven were girls, the rest boys; and none of them had deaf and dumb parents. The gentleman who was engaged in the superintendence of the establishment said that he had had opportunities of tracing the subsequent histories of many of his scholars, of whom some were married and had children, all of whom were perfect in hearing.[1] In the Deaf and Dumb establishment at Manchester, the number of children, in 1837, was one hundred and six, of whom forty-eight were from seventeen families, averaging nearly three to each family. Of these there was but one instance in which the defect was hereditary.

The tendency to cataract, blindness, and other organic defects, is said to be hereditary, of which there are numerous instances on record.

As there is no physical peculiarity more liable to transmission than that of temperament, so the several types of disease peculiar to such condition must be expected to influence any specific idiosyncrasy or diathesis derived from the parent. In the sanguine temperament, for instance, the tendency will be always to acute inflammatory action; in the nervous temperament, disturbances of the

[1] Adams, *op. cit.*

cerebral system must be expected as a complication, convulsive affections, epilepsy, hysteria, chorea, mania, with a susceptibility to acute inflammatory action; the phlegmatic constitution is preternaturally disposed to diseases of a chronic character, dropsy, asthma, some forms of cancer, &c.; and the bilious are especially liable to all affections arising from derangement of the cheilo-poietic system. "The celebrated Boerhaave used to tell his audience that he knew a certain family in whom all the children, at a particular age, were troubled with the jaundice, and at length, the disorder, yielding to no remedies, destroyed them with a dropsy."[1] We find a particular tendency in some families to derangements of this class, and in such individuals, whatever disease may happen to prevail, or whatever organ be deranged, biliary disorder is almost certain to constitute a complication.

A disposition to the formation of abscesses is witnessed in certain families, owing probably to the presence of some morbid principle in the blood, difficult to remove. The suppurative action seems, in many instances, to be a healthful effort of the system to rid itself of its noxious burthen, being often preceded by constitutional perturbation, which subsides on the localization of inflammatory action, and the consequent accumulation of matter. The most familiar example of this tendency consists in the formation of boils, which may present themselves in all the children of a family at particular ages, or under certain states of indisposition; one or other of the parents being able, for the most part, to exhibit indelible blemishes left by similar inflictions. That formidable accumulation of pus, in form of psoas abscess, thus appears in successive generations. A still

[1] Van Sweiten, *Com.* 485.

more common example of the same diathesis is that of quinsy. I attend a married lady, twenty-seven years of age, who for several years has had at least two attacks annually of this kind; her father and his sister are subject to frequent returns of the same complaint, and two of her cousins, the daughters of her father's sister, are in like manner affected.

In a family in whom this tendency is well marked, the predisposition to hydrocephalus is equally prevalent in the children in infancy. The father has periodical attacks of quinsy, with which he has been afflicted since boyhood. Of his children, seven in number, one died of hydrocephalus in infancy, and several of the others had repeated attacks of cerebral disorders until the period of the second teething. Those who escaped the symptoms of hydrocephalus were as frequently troubled with inflamed tonsils, which, in later life, has been developed into quinsy. The sister of this man is also troubled in like manner. Two of her children died in early life of hydrocephalus, and one of her daughters, now approaching adult age, has several times had guttural abscess.

It seems not exactly known what the precise condition of the body is which especially predisposes to, and immediately precedes, the conversion of some of the elements of the living blood into dead purulent matter; the latter seems to hold the same relation to the vital fluid that mortification does to the living solid. Both areattended by the same process of devitalization. Theoretical chemistry has attempted to solve the problem in the following manner.

Fibrin in its natural state, that is, as it exists in healthy blood, supposed to be an oxide of albumen, so-

luble in the serum, and highly charged with nitrogen, is the principal agent engaged in the processes of nutrition and renovation of the tissues. Its great affinity for oxygen, with which it is supposed capable of combining in definite proportions, renders it liable to considerable variation, both as to its properties and usefulness. Thus, under states of morbid excitement of the system, attended with accelerated respiration, when an inordinate amount of atmospheric air is brought into constant relation with it in the lungs, a portion of it becomes binoxydized, in which form it is insoluble in healthy serum. It is supposed that this combination forms the buffy coat of blood, removed in states of inflammatory disease: its accumulation in any organ or tissue constitutes the principal condition of local inflammation; and its presence, combined with a portion of albumen and some saline ingredients diffused in a proportion of the liquor sanguinis, forms that highly-organizable compound known as coagulable lymph, so frequently a product of inflammatory action. The elimination of this material has been considered a salutary process, serving as a ready medium of adhesion between contiguous tissues disjoined by disease, as in destructive ulceration of the hollow viscera, or solution of continuity of superficial structures. Its presence, on the contrary, under other circumstances, may be the cause of permanent mischief, as when its deposition takes place within serous cavities, the contiguous organs becoming glued together, and their movements thus restrained, and sometimes seriously incommoded.

An important relation subsists between the globulin and the fibrin, as regards the changes which they undergo during the respiratory process. It is known, that

during this process, in the healthy subject, not only is the plasticity of the fibrin increased, but the actual quantity of fibrin is augmented also; and that, on the other hand, the amount of fibrin diminishes in blood which is not efficiently brought in contact with the oxygen of the air. As the blood-corpuscles principally consume oxygen during their respiratory change, it appears very probable, according to Simon, that the fibrin is produced during this process. The same author believes that this view is further elucidated, and indeed confirmed, by his analysis of the blood, in which it appears that, with very few exceptions, the amount of fibrin always varies inversely with the mass of the blood-corpuscles, or, in other words, that the more corpuscles there are, the less in quantity is the fibrin, and *vice versâ*.[1]

When under the influence of febrile or inflammatory excitation, localization of the super-oxydized fibrin takes place, it undergoes another series of important alterations, constituting the phenomenon of suppuration. A portion of it is supposed to receive, while thus located, yet an additional atom of oxygen, by which it is converted into a tritoxyd at the expense of another portion which becomes reduced to the state of simple oxyd. By this transfer, the insoluble binoxyd is transformed into two fluids of very dissimilar properties; the simple oxyd, having lost the burthen by which it had been rendered noxious or useless, is restored to health, and returns to fulfil its purposes in the economy; the other has undergone the final change of devitalization, and the process necessary for its ejectment is speedily commenced. Thus it would appear, that one and the same simple element,

[1] *Animal Chem.*, vol. i. p. 187.

by its mode of combining with the blood, is at the same time the principal agent employed in the renewal and sustentation of animal tissues, and in securing the healthful discharge of their various functions; in perverting the same life-giving fluid to the origination of loathsome and quick-destroying maladies; and further, in the removal of the evils which itself hath been the means of creating.

The formation of pus is probably due to the process of secretion. It has been vaguely attributed to solution of the solids, to putrefaction, fermentation, saponification, attrition, perturbation, disintegration of the humours, &c. Morgan seems to have been the first to attribute its formation to a process of secretion. He says, "Puris confectionem œconomiæ animalis opus esse secretioni maximæ analogam, aut revera fluidi peculiaris secretionem ex sanguine oriri, factam virtute vasorum, ex debito gradu inflammationis præcunctis, huic accommodatorum."[1] Hunter entertained a similar opinion. He regarded the disposition of the vessels in the new structure as glandular, and their product a secretion. Other views have been at various times promulgated, but the doctrine above quoted seems now to be generally adopted.

That pus is not produced at the expense of the solids is a fact probably familiar to every one. A wound may exist upon the cutaneous surface, and may furnish, by suppurative action, in a comparatively short space of time, an amount of discharge equal in weight to that of the whole member upon which it is situated, the solid structures remaining unaltered. The dimensions of hypertrophied tissue will often remain in like manner

[1] Pyogenosis, sive tentamen modum de puris confectione. Edin. 1763.

persistent under attempts made to reduce them by artificial means: any diminution in volume which may occasionally take place under these endeavours, is to be attributed to the action of the absorbents. The notion of the conversion of effused blood into pus is perhaps not altogether fanciful; but in this case, suppurative inflammation is first set up, and the subsequent transformation is mainly owing to the action of the pus globule upon the blood with which it is placed in contact. Berard states, that he has witnessed this curious change under the microscope. A small quantity of pure blood was mixed with recent pus on a slip of glass, and placed under the microscope. While under view, the whole of the blood was, by little and little, changed into pus: the blood-corpuscles were noticed to move in the direction of the mass of pus, and on approaching the latter, their colour gradually faded, and they seemed to melt away in the liquor puris.

The rupture of blood-vessels was considered by Boerhaave as a condition necessary to the formation of pus; and from the frequency of the occurrence of abscesses in the cellular structure, Grashuis referred it to degeneration of the fatty principle. Recent observations tend to show the inadequacy of both these theories to the explanation of the phenomena in question.

Pus, like all secreted humours, is formed at the expense of the blood circulating in the capillaries of the part where the morbid action takes place. It does not consist of decolorated globulin, as was suggested by Sir E. Home, for the corpuscles of the blood are too large to circulate in the capillaries, and are capable of advancing to within a certain distance only of the seat of the purulent elaboration. Bérard considers that the morbid product

is derived from the serum: not the serum such as it is seen surrounding the clot of blood removed from the body; but the living serum, holding in solution the fibrinous element and the salts, and which, in this state, furnishes all the materials of secretion and nutrition. He believes that the capillary serum exudes through the walls of the inflamed vessels, and in this transit an elaboration takes place, which results in the formation of pus. If the surface of a wound be minutely examined, it will be found covered with a film of new substance, which is the pyogenic membrane; this structure is traversed in every part by vascular capillaries of extreme minuteness, in which a very active circulation is carried on. The removal of the purulent product from a portion of its surface occasions no solution of continuity in the new structure, but from a multitude of points the fluid is again seen to exude, by which the part is soon covered as before.[1]

This pyogenic membrane, formed doubtless of organized lymph, constitutes the medium between cavities containing or generating pus, and the sound tissues; and besides lining the walls of abscesses, it probably precedes, in all inflammatory affections, the formation of pus on extended mucous and serous surfaces, as well as on the excoriated skin. It is proved to be highly vascular, consisting of a continuous plexus of venous and arterial capillaries, but having only a sparing supply of absorbents. This latter circumstance has been mentioned as a natural provision against the readmission of pus accumulated in abscesses, or in any other manner, into the general circulation. It must be remembered, however, that pus is frequently deposited upon surfaces where a most active

[1] *Dict. de Méd.*, art. Pus.

absorbent process is going on; that this function is performed by venous as well as lymphatic radicals, and yet no injurious consequences ensue. The immunity of the system from the disastrous contamination of pus depends, under all ordinary circumstances, upon a provision of a character very different from that which supposes it to be owing to a paucity of absorbent capillaries.

It has been already said, that the blood-globule, from the mere circumstance of its dimensions, was not capable, under normal conditions, of circulating in the capillaries. The pus-globule, the essential element of this fluid, besides other distinguishing characters, is considerably larger than that of the blood; its admission, therefore, into the absorbent capillaries, whether venous or lymphatic, is mechanically impossible, and hence the security which the system enjoys, generally, from purulent contamination. It is true that collections of pus are sometimes seen to disappear by what is considered the agency of absorption; but in such instances it is extremely probable, as Bérard believes, that the pus itself previously undergoes a process of solution, and so its readmission takes place under a modified form, in which form it becomes innocuous to the blood with which it is again commingled. It is believed by some authors that the phenomena of hectic, in many instances, are due to this cause. Dr. J. Thompson thinks himself justified in "adopting the common opinion, and in believing that hectic fever is in many instances connected, if not with the absorption, at least with the formation of pus."[1] It is commonly thought that the only mode in which the pus-globule can gain admission into the circulation, is during the prevalence of suppurative inflammation within

[1] On Inflammation.

the cavities of the circulatory apparatus, as in endocarditis or phlebitis. But the researches of Andral go to prove, that pus is occasionally met with in considerable quantities combined with clots of blood obtained from the heart after death, in patients in whom purulent infection appeared to constitute the immediate cause of dissolution, happening in those who had fallen a sacrifice to cancer, as well as in phlebitis.[1] In what manner soever introduced, pus, present in the blood, seems to possess an extraordinary power of increase, and this increase is effected at the expense of the globulin and fibrin, which, according to Felix d'Arcet, it deprives of the oxygen with which these principles are naturally charged. The localization of pus, thus circumstanced, is accounted for by the detention of its globules in the small vessels, in which they are too large to circulate, and where they act as foreign bodies, inducing the double action of secretion and progressive ulceration. "The secretion augments the quantity of pus already formed; the ulcerative action produced by its accumulation has a constant tendency towards the surface."[2]

The sudden disappearance of large accumulations of matter which sometimes happens, is doubtless due to the absorbent action of the veins and lympathics: but it is by no means probable that the purulent product enters the system through these channels unchanged. It probably undergoes that kind of dissolution already mentioned, and is reproduced in its characteristic form by the capillaries of the emunctory organs through which it is voided. Van Swieten, in Commentary 1191, mentions the case of a woman four months gone with child,

[1] *Essai d'Hæmatologie Pathologique*, p. 179.
[2] *Dic. de Méd.*, tom. 726, art. Pus.

labouring under empyema, in whom a fluctuating tumour, the size of a child's head, presented itself between the seventh and eighth ribs, and which was opened by her medical attendant. An abundance of well-formed pus escaped, and, on the following day, a plentiful discharge of a similar material was voided both by the bowels and from the bladder; and the patient, who aborted in the sixth month, recovered favourably, and bore three children afterwards. Now, although it is possible that a direct communication might have been established between the pleural cavity through the diaphragm and the alimentary canal, it would be a stretch of credulity to attribute the conveyance of the material from the chest into the bladder through a similar channel. In another place, the same author mentions an abscess formed in the fore-arm, which, when on the point of opening naturally, suddenly disappeared, a large quantity of pus being at the same time evacuated by the bowels. A similar occurrence is noticed by Ambrose Paré, where an abscess of the arm, the result of a burn, suddenly disappeared, a discharge of pus simultaneously taking place both by stool and urine.[1] The disappearance of an abscess of the arm under like circumstances is mentioned by Quesnay. The patient was suddenly seized with purulent diarrhœa, the number of dejections, all of purulent character, amounting in one night to twenty-five, in which brief period the abscess entirely subsided. Another case is recorded in the *Journal de Médecine* de Corvisart, where an abscess of the leg, was the result of phlegmomous inflammation, and which the medical attendants had determined to open; but when they arrived for the purpose, it was found that the tumefaction had entirely disap-

[1] Opera, lib. xvii. cap. 51.

peared, the patient having voided a large quantity of pus both by vomiting and by stool.

The same law which Nature obeys in her efforts to translate the hurtful product of diseased action from an organ whose function is incommoded thereby, to another whose purpose is to expel it from the system, is the same which the medical practitioner is daily in the habit of imitating artificially. He is accustomed, by the use of remedies, to witness the subsidence of deep-seated abscesses under the existence of suppurative action induced on the superjacent skin. Yet is this result not due to a transference of the pus-globule in form, from the cavity where it was lodged, to the surface. If the capillaries be too small in dimension to circulate the pus corpuscle, neither can the pus-corpuscle, already formed, be deposited by the capillaries on the surface whereto it is thus artificially solicited. The transposition is necessarily accompanied by transformation and reconstruction of the material.

But the deleterious effects of purulent formations are not alone due to its admission in its natural state into the blood. When collections of pus have remained pent up in cavities for a length of time, either by a process of decomposition, or by an act of secretion performed by the pyogenic membrane, the elimination of gaseous products takes place: these are ammonia, sulphuretted hydrogen, or hydrosulphuret of ammonia. The process is considered by Bérard to be due to the presence of atmospheric air, admitted from without; but we frequently meet with it in the cavities of abscesses into which atmospheric air could not have found access, as in scrofulous accumulations about the neck, as well as in simple abscesses of the breast. Sir B. Brodie has re-

corded a remarkable instance of the kind, in an enormous collection of matter on one side of the rectum, supervening upon the closure of an old fistula, into which atmospheric air, if admitted at all, could only have been so in too small a quantity to produce, by chemical processes, the changes which presented themselves. He was called to see an elderly gentleman who seemed to be dying: it was thought he could not live twenty hours longer. It was ascertained that he had had a fistula for several years at the side of the rectum, and being afraid of an operation, had allowed the disease to exist. The outer orifice of the fistula had been closed two or three months. That no internal communication existed between the bowel and the abscess is likely enough; if otherwise, the matter would doubtless have escaped by it. At first, he experienced but little inconvenience, but in a short time a sense of pressure and bearing down of the rectum was felt, and his health became disturbed. At length, typhoid symptoms came on, and he appeared to be in articulo mortis. "I introduced my finger into the gut, and above the sphyncter muscle I could feel a tumour on one side, evidently an immense collection of matter. With the fore-finger of one hand in the rectum, I introduced a lancet with the other hand, and ran it up to the point where the matter was collected. I dilated the opening with a probe-pointed bistoury, and then there escaped a pint of matter so putrid and offensive that the whole house was poisoned by it. The smell could hardly have been worse if a nightman had emptied his cart into the rooms. The patient was better directly, and lived several years afterwards."[1]

[1] Lectures delivered at St. George's Hospital.—*Med. Gaz.*, vol. xxxiii. p. 516.

The habit of body which predisposes to the formation of pus—independently, of course, of local irritation similar to that which prevailed in the last-named example—is that wherein a preternatural disposition exists to the elaboration of certain of the blood constituents in preference to others, possibly to augmentation of the fibrin principally. This tendency is seen to prevail in certain families, and in some forms of temperament more than others. Such a disposition is capable of being exaggerated or modified in the offspring, by marriage, climate, mode of living, disease, and other agencies. In infant life, when a decided predisposition of any kind is known to exist, means should be at once adopted with a view to its amelioration, such as the providing a healthy nurse of an opposite temperament, a suitably regulated hygiène, and, if possible, change of climate. The selection of an occupation adapted to the physical and mental capabilities of the individual will also be a matter of considerable importance.

A curious question connected with the pathology of the blood, is that which relates to the occasional presence of animalculæ, both in this fluid and in pus. M. Donné contributed a paper on this subject which was read before the French Academy of Sciences, in 1836, wherein it is stated, that he had detected living animalcules in the secretions both of chancre and simple balanitis: they were every way similar to the infusorial animalculæ of Müller, denominated vibrio lineola. This product, inoculated upon the sound texture, produced a pustule, in the matter of which innumerable animalculæ of the same kind were seen. The pus of buboes, as well as that of secondary chancres situated elsewhere than on the glans penis, did not contain them. In the product of

vaginitis, similar beings were witnessed; and besides vibriones, another species of animalcular object was present, which was more than double the size of the pus-globule. This fact was demonstrated both by M. Donné and by M. Desjardin, by whom it was named tricomonas vaginale. Animalcules have been seen also in purulent secretions which were not of an infectious nature, by Vogel, Valentin, and others; and Wagner describes an insect which he calls colpoda cucullus, found in the secretion of a cancerous affection of the lip.[1]

It is remarkable, observes Bérard, that before the discovery of the pus-globule, these animalcules were witnessed in purulent secretions, and especially in that form of them produced by the chancrous ulcer, by Borelli, who says: "In gonorrheâ virulentâ militis, seu in balano ejus, amicus meus observavit insectulum limaciformem, sed fere invisibilem . . . . . triginta autem vel quadraginta peperit ova in microscopio, e quorum quibusdam vermiculi subtillissimi sed hirsuti manabant: punctis autem notata erant, et distincta ova supra dicta." (Obs. No. 53.) Kircher has spoken of animalcules in the bubonic abscesses of plague.[2]

A singular phenomenon observed during the examination of the pus-globule is recorded by Bourguignon. This microscopist remarks, that the pus-globule is formed of an external involucrum inclosing a number of corpuscles which enjoy the power of spontaneous movement. If a portion of the material in question be compressed between two pieces of glass, the globules are flattened, they change their form, becoming oval, triangular, &c., but without rupture of their external envelope; but if water be added, it seems to be absorbed by a process of

[1] *Dic. de Méd.*, art. Pus. [2] Ibid., loc. cit.

endosmosis, the globules regaining their spherical form, and becoming sensibly increased in size. If recent pus, thus treated, be carefully examined under the microscope, the increase in dimension goes on until the globule bursts, and gives escape to a number of small bodies which move about rapidly in the liquid. If the attention remain fixed for a time upon the objects, a multitude of animalcules are seen moving in the field of the microscope. "I declare," says Bérard, who was invited to witness the fact, "that I have seen, distinctly seen, this curious phenomenon, while the globules were yet entire; and after the envelope gives way, the corpuscles continue to move after the contents have escaped. Their movements are immediately arrested by the addition of acetic acid." M. Bourguignon says that the addition of water is not necessary to the development of these movements, as he has witnessed them where this fluid was not used in the examination. M. Mandl also witnessed the same phenomenon in a subsequent examination, and declared that the movements in question were perfectly distinct.

If we bear in mind that these phenomena are for the most part witnessed during the prevalence of those diseases which owe their origin to the introduction of morbid poisons, and that the system once thus impregnated, is with great difficulty freed entirely from the effects which they are liable to entail, it will not be in any way unreasonable to suppose that this taint may have the effect of rousing into active existence that formative power which different organs seem to possess for the development of animalcules peculiar to their structural arrangement respectively. Thus, the acephalocystis endogena, as well as the echinococcus, under certain states of the body, have been found in the brain, liver, heart, spleen, and kidneys; the cysticercus cellulosa

in the substance of muscle, the brain, and the eye; the trichina spiralis in the voluntary muscles; the polystoma in the ovary, and a number of others not necessary to specify. It has been supposed that the germs of these animals must have been introduced from without; but this is scarcely possible. It would appear strange indeed to find beings endowed with an organic arrangement peculiarly adapted for their sustentation in a particular medium, as in air or water, adapting themselves to a mode of life so totally different, and invariably selecting a particular organ in the œconomy for their habitation; and, moreover, on being introduced into the digestive canal, making their way at once to the brain, the eye, the kidney, &c. According to this law, their presence should be looked for especially in a state of health and at particular seasons of the year, when materials of a very heterogeneous kind and in great abundance are ingested; and yet the conditions under which they are most frequently developed are those induced by prolonged disease, during the prevalence of which the quantity of aliment imbibed would famish the body in a state of health. It may be mentioned as an additional objection, that most frequently they make their sudden appearance during the prevalence of epidemics, which are not preceded by any simultaneous development of these animals in objects external to the body. The supposition seems altogether untenable.—(Guérard.)

But there is a circumstance which is sufficient of itself to subvert the above theory: it is this fact, that entozoa of various kinds are occasionally discovered in the fœtus at birth. How is their origin to be accounted for during the process of utero-gestation? The testicle may be mentioned as another case in point. Before the age of puberty, no animalculæ (or ciliary bodies, as some phy-

siologists will have them called) exist in this organ, although a kind of secretion is furnished by it from the earliest age. "Is not this the result of spontaneous generation, that is, the concentration of the elements previously existing?"—(Guérard.)[1]

These observations appear to be not inapplicable to the present subject. In Case XXV. will be found some particulars of a man in whom an extraordinary generation of lice was witnessed, infesting the skin of the trunk and abdomen; their formation being due, apparently, to a morbid state of the blood. The patient had previously suffered severely from the effects of syphilis. External applications of a varied description had no effect upon them, and they were ultimately destroyed by internal remedies alone. I have since met with a young lady suffering in a precisely similar manner, who had the disposition from birth, due, probably, to hereditary transmission. It is traditionally recorded that more than one family of high standing in this realm have inherited, through several generations, this tendency.

I will now direct attention to a few facts relating to the hereditary properties of the syphilitic poison, this being more especially the object of the present essay.

It was customary with De Hery, whose work (*La Méthode Curatoire*, Paris, 1552,) will be again referred to in another chapter, and the writers of his period, to regard the first stage of a venereal affection as the least impor-

[1] These views on the origin of some of the parasites of the human body are, I confess, materially changed since the perusal of an able review of an extraordinary work entitled *Die in und an dem Körper Lebenden*, &c., by Fr. Kuechenmeister, Prakt. Arzt in Zittau, Leipzig, 1855; and others on collateral subjects by Kraemer, Barker, Bristowe and Rainey, Carter, and Busk.—*Brit. and For. Med. Chir. Rev.*, Jan. 1851.

tant part of it, believing that the true nature of the disease was developed at a period subsequent to the disappearance of the primary phenomena. In the voluminous works of Mercatus, a chapter, "De Morbo Gallico," consisting of two parts, is devoted to the consideration of these affections; and in another chapter, entitled "De Morbis Hæreditariis," venereal affections are frequently referred to, and appear indeed to form no inconsiderable portion of those maladies which he considers to possess hereditary properties. He says it often happens that the venereal disease is imbibed by the infant from an infected nurse through the medium of the breast, or from its mother, who, having been imperfectly cured, communicates it either by the milk of her breast, or during its intra-uterine existence; for the poison contaminates not only those of adult age, but also the infant within the womb of its mother.[1] In another chapter the same author, speaking on the subject of treatment, says, there are some hereditary diseases which admit of complete cure, although with difficulty; such are those derived from a father infected with the venereal poison, breaking out in the offspring. He believes that the liver of one who has suffered severely from this disease becomes permanently deranged, and that the same organ in his children is in like manner infected, although, in process of time, susceptible of cure: but that the same form of disease is liable to reappear in future generations, although apparently exterminated and lost sight of for a period.[2]

[1] Contigit non raro pueris vel a nutricibus infectis, vel parentibus improbe curatis, ab utero matris, aut nutricis succrescere Gallicam infectionem: nam eo miseriæ solet humana hæc calamitas devenire, ut non solum grandiores et ætate confectos corripiat, verum et infantulos adhuc in matris ventre.—Mercatus, lib. ii. cap. 3, p. 654.

[2] Secunda tenet conclusio, est alios morbos ex hæreditariis, qui prorsus curationem admittunt, licet cum difficultate, quales sunt qui

the places adjacent; the Government thought proper to send two medical gentlemen, in order to discover the cause of the evil, and, if possible, to arrest its progress. M. Morand, senr., and M. Lassonne, Members of the Academy of Sciences, were charged with this mission. They discovered in the nurses traces of the venereal disease, more or less degenerated; they were put upon a strict regimen, and thus became healthy and capable of furnishing better milk. The evil was thus checked in its source. Most of the children were treated with mercurials combined with antiscorbutics, and those with whom the disease was not too deeply rooted were cured; even their limbs reassumed their proper shape: but those who were not well cured, and who afterwards married, probably gave birth to children who were diseased like themselves, or perhaps worse: . . . . the nature of their diseases will be more difficult of discovery, if the venereal taint be not manifested in the parts of generation, but by various other symptoms."[1]

Portal mentions a town in the department of Paris which was full of these various evils, more or less resembling scrofula, the complaints having originated out of two or three bad marriages. The children of these connexions intermarried, and thus the hereditary diseases were successively multiplied. "These examples," he remarks, "more and more evince the propriety of watching over marriages, to prevent effects so direful to the human race."

Frambœsia, or the Yaws (Syphilis Indica), was described by Dr. Adams as the result of a morbid poison of its own kind. It was supposed to be peculiar to the African race. It is every way similar, however, to a form of disease which has been long known in Scotland by the name of Siv-

[1] Op. cit.

followed by scrofulous affections; and it is from reiterated observations of this description that some medical men, both among the ancients and the moderns, have not hesitated to propose the same remedy for the treatment of scrofula and lues venerea: *Lues venerea et strumæ et elephas, aliquid habent cognatum*, says Baillon, in one part of his works; and elsewhere, *Affines sunt lues venerea, strumæ et elephas.* Astruc has also established, that the scrofulous taint was frequently a degenerated syphilitic taint; and Bouvart, Baden, Lalouette, and other eminent physicians and surgeons, have latterly furnished new proofs on this point, which have several times directed to fortunate practical results."[1]

The same author remarks, that for fifty years previous to the time when he wrote, a remarkable proof was witnessed at Paris, of the degeneration of the venereal virus into steatomatous and rickety diseases. "Every person," he says, "must have been struck with the great number of children attacked with swellings in the abdominal viscera, with large and deformed heads, curvatures of the spine, distortions of the limbs, contraction of the cavity of the chest, some of whom died of consumption and convulsions, or remained in a state of mental imbecility. In the bodies of some of these children, swellings have been observed in the lymphatic glands of the lower part of the face, of the neck, arm-pits, and groin; and finally, we have found in some of them pustules of the skin, with chancres on the lips and parts of generation. As most of these children were nursed in the country, it was never doubted that they had contracted these diseases from their nurses. It was discovered that a great number of them had been nursed at Montmorency, and

[1] On Hereditary or Family Diseases, *Med. Jour.*, vol. xxi. p. 287.

the places adjacent; the Government thought proper to send two medical gentlemen, in order to discover the cause of the evil, and, if possible, to arrest its progress. M. Morand, senr., and M. Lassonne, Members of the Academy of Sciences, were charged with this mission. They discovered in the nurses traces of the venereal disease, more or less degenerated; they were put upon a strict regimen, and thus became healthy and capable of furnishing better milk. The evil was thus checked in its source. Most of the children were treated with mercurials combined with antiscorbutics, and those with whom the disease was not too deeply rooted were cured; even their limbs reassumed their proper shape: but those who were not well cured, and who afterwards married, probably gave birth to children who were diseased like themselves, or perhaps worse: . . . . the nature of their diseases will be more difficult of discovery, if the venereal taint be not manifested in the parts of generation, but by various other symptoms."[1]

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[1] Op. cit.

vens, or Sibbens, and appears to be analogous also to an affection bearing the same characters met with in Canada. Bell thinks that these and the venereal disease are varieties of the same complaint,[1] and Swediaur seems to entertain the same opinion.[2]

Lagneau says that the Yaws, met with in its primary form, is commonly the result of intersexual communication, where the genital organs of one of the parties still retain traces of the eruption. In other instances it is secondary, manifesting itself as a sequel of a venereal affection which appeared to have been cured; or it sometimes appears while the venereal symptoms still exist, in cases where the curative attempts have been protracted. Sometimes also it will supervene upon an imperfectly-cured primary affection of its own kind, and occasionally it is witnessed as a consecutive symptom of old syphilis. Actual contact of the diseased part upon a mucous surface appears not to be absolutely necessary to its origination: often it is quite sufficient to apply the matter of a sore to the sound epidermis. It is even mentioned that the disease has been contracted by merely touching the hand of a person so affected.[3]

The father of infinitesimal medicine refers the origin of all chronic diseases to influences derived from three sources—namely, syphilis, sycosis, and scabies: the last-named he deems the most important of the three. "Their operation," he says, "upon the economy is at first imperceptible; they undermine by slow degrees the health of the body, and finish by destroying it without

[1] *Treatise on Gonorrhœa Virulenta and Lues Venerea*, vol. ii. p. 224.

[2] *Practical Observations on the more obstinate and inveterate Venereal Complaints*, p. 175.

[3] *Dict. de Méd.*, art. Pian.

the possibility of being arrested by the unassisted agency of the vital forces."[1]

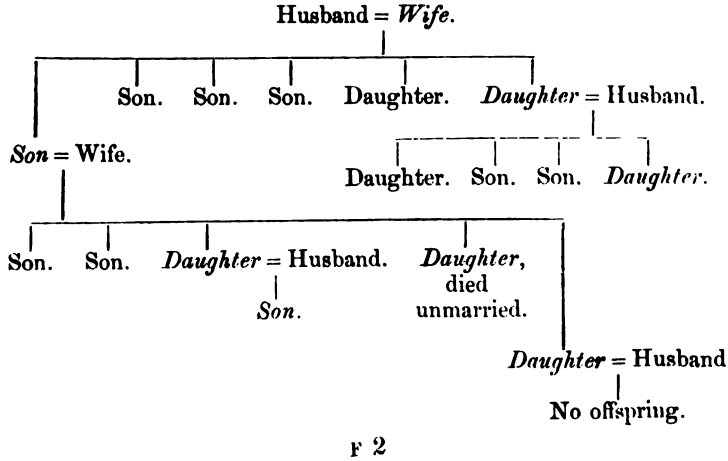
To what extent scabies in its various forms may be regarded as a vicarious manifestation is not, I think, clearly shown. It certainly does alternate in a remarkable manner with disordered states of the liver and stomach, as well as with some forms of rheumatism; these being absent during the prevalence of the skin affection, and returning on its spontaneous disappearance. Of such examples I have the records of several well-marked cases. In one of these instances both mother and daughter were similarly affected, with this variation: in the absence of the eruption, the daughter suffered from dyspepsia and congested liver, with rheumatism of the head of most distressing severity; the mother had deep-seated headaches, accompanied with fits of mental derangement. The eruption occupied the hands and arms in both.

The importance of syphilis as a morbid poison, capable of being transmitted in various forms, and of sycosis probably as a result, was acknowledged by writers from the early part of the sixteenth century, and it is only very recently that their dependence one upon the other appears to have been lost sight of. That sycosis does, however, supervene upon latent syphilis; that phenomena simulating lues venerea are liable to occur in the offspring of one affected with sycosis; and that hence the disease of sycosis may probably be looked upon as a variety of the venereal disease, will be shown presently. The isolation of this, as well as of some other forms of disease, is probably owing to the little attention which has of late been directed to the varying phases of secondary syphilis.

[1] Hahnemann, *Organon de Guerir;* traduct. de Jourdan, Paris, 1832.

Sycosis is an hereditary disease; or rather, that quality of the blood which predisposes to and becomes capable of producing sycosis at certain stages of life is transmissible: the symptoms reappearing, apparently unimpaired as to virulence, in successive generations, to a remoteness not hitherto determined. It is popularly believed that the taint appears in the males or females exclusively, in alternate generations: this order was not strictly observed in the following instance. It may be difficult to assign a reason for the immunity of some of the members of a family, while the symptoms appear in others with all their characteristic severity.

I have been an eye-witness to the existence of this form of disease in three successive generations of the same stock, in an educated family of high respectability, and I have their own testimony to its prevalence in the generation immediately preceding. The following diagram is intended to exhibit its mode of transmission in this instance. The words in *italics* indicate the members in each generation in whom the symptoms were developed; the rest were not affected:—



I have had no means of ascertaining in what manner the affection originated, or to what cause it was to be attributed, in the above instance. In the following example, however, this point was less obscure.

In Case XXIX., the particulars of which will be narrated in the next chapter, the husband had sycosis, which had existed since very soon after marriage. None of his ancestors or collateral relatives, according to his own account, given in answer to my inquiries on this subject, had ever suffered in like manner; and this was further corroborated by the result of additional inquiries made at my suggestion. He declared that he had never had syphilis or gonorrhœa, although previous to marriage he had led a gay and dissipated kind of life. With a mind lamentably debased in a religious point of view, he was, nevertheless, frank and honest in his confessions and dealings, and incapable, I believe, of uttering a falsehood. Habitually a *bon vivant*, he was not intemperate; that is to say, he was not addicted to intoxication, so that the eruption could not be attributed to excess in drinking. He referred it to atmospheric influences; but the character of the tubercles and of the surrounding skin very much resembled that of syphilis, and this inference was materially strengthened by the symptoms evolved in the wife and offspring, which first led to these inquiries. I remained in the dark, however, on this point until a later period.

The first five children which his wife bore, born alive at the full term of utero-gestation, died before the age of six months, of disease every way like constitutional syphilis; scaly blotches on the skin, sore mouth and throat, husky voice, impeded nasal breathing, and emaciation. Of the two who survive, one is a child of weak

intellect, having suffered during infancy and childhood from repeated attacks of venereal eruptions; the other was under my care, at different times, from the age of twelve months until her final cure by mercurial remedies—all other means having signally failed—at the age of four years.

The wife came under my treatment for uterine disease. It consisted of a number of warty vegetations, occupying both the surface of the vaginal membrane and also the lower part of the uterus, attended with copious discharges of a thin, offensive sanies, occasionally sanguinolent. By means of local and constitutional treatment, which was of an alterative character, the growths on the vagina were reduced, but those on the lower section of the uterus remained, and gradually assumed the malignant type. She died of cauliflower cancer about nine months after my first attendance, and was subjected to a *post-mortem* examination.

During the latter part of the treatment adopted in his daughter's case, the father came to show me an eruption which he said had appeared at certain seasons since marriage, and which my remarks from time to time had induced him to consider of some importance. This eruption, which occupied the glans and preputium penis, was in form of measly blotches of different dimensions, circular in form, varying from a line to a quarter of an inch in diameter, slightly elevated, and of characteristic tint. He had lately called to mind also, that before marriage he had a small urethral ulcer, but which got well without any remedy, external or internal. He directed my attention to the mark left by this ulcer. It was a white cicatrix situated within the urethral orifice, occupying the labial commissure at its upper part. This was sufficient,

in my estimation, to solve all previous doubts. By a rigid course of mercurial medicine, not only were the blotches removed, but the sycotic tubercles also, which had for so many years infested his face, were much modified. He has had several relapses, attributable doubtless to the morbid habit which the skin had acquired by time, but by as often resuming the use of the remedy, they have at length ceased to appear.

Another case not without interest in connexion with this subject, is that marked XXXII. The wife is a woman of unblemished character, thirty-two years of age; the husband is equally irreproachable, frank, truthful, and well-informed for one in the position which he holds. He has been affected with sycosis since the age of twelve years. They have been married five years, during which period the wife has been pregnant six times. Her first and second pregnancies terminated abortively at three months. The third and fourth were premature births, still-born, each in the seventh month. The fifth was born alive at full term, but died miserably emaciated, and covered with scaly eruptions, which first appeared in the second or third week after birth, at the age of seven months.

The sixth child was born alive at the full term of utero-gestation, January 5, 1851, and was brought to me at the age of thirty-nine days, February 13. Its face, neck, breech, and limbs were covered with blotches of well-marked syphilitic character. The eruptions were in some places distinct, in others confluent; circular in shape, varying in size from a quarter to half an inch in diameter, scaly, surrounded by an areola of a deep coppery tint, the rest of the skin being of a waxy paleness, and in some places œdematous. The lips and anus were fissured,

the eyes tender, the nose obstructed, and the voice husky. It died on the fifty-second day of its age.

The mother has had a purulent leucorrhœa since soon after marriage, attended with all the disturbances commonly attendant upon diseased uterus, with which she was never previously troubled. The lower section of this organ presents the usual characters of secondary syphilitic disease.

The husband, a spare sinewy subject, of light complexion, twenty-seven years of age, has the face covered with tubercles of sycosis. The complaint is said to have commenced at the age of twelve years, having been preceded, according to his own statement, by an attack of hæmorrhoids, followed by fistula, which was cured without operation. From that time to the present the eruption, which he calls scurvy, has never been absent, spite of a very varied and persevering treatment frequently renewed. It is always aggravated during spring and autumn. At these seasons, the tubercles, besides being increased in number and size on the face, affect also the tongue, palate, and throat. The chest, back of the neck, and sides of the body, are covered with silvery scars, showing the seat of former eruptions of a similar character.

His father, who died at the age of sixty-four years, of "decline," had a similar affection of the face many years before his death; although the two elder brothers of the latter, who lived to the ages of eighty and ninety-four respectively, were not so affected, nor is any like form of disease known among their numerous offspring. The father of the patient is said to have been a man of dissolute habits in early life.

The patient has five brothers, all older than he, each

of whom has suffered in like manner from sycosis since early youth. They are all married, and a remarkable fatality has been noted among their offspring, in infancy and childhood.

Sycosis has been so named from a resemblance which the eruption is supposed to bear to the inside portion of the fig; but the similarity is doubtless somewhat remote. It was also, by ancient writers, designated mentagra, or mentulagra, from the circumstance of its usually affecting the chin. This appellation is also ill-chosen, for the disease not unfrequently affects other parts of the face, the hairy scalp, the inside of the mouth, and various parts of the trunk of the body.

It has been attributed to a number of causes, such as exposure of the face to atmospheric impurity, inclemency of weather, and to intemperance. But most writers on this subject, anterior to the present age, were in the habit of regarding it as a sequela of syphilis. From whatever cause arising, it is evident that the disease which we now call sycosis is in many respects similar to one which was prevalent in ancient times. Pliny the naturalist mentions it by the title of mentagra, and says that it affects not only the chin, but also the neck, abdomen, and hands, covering these situations with disgusting furfuraceous scales (fœdo cutis furfure).[1] He says the principal mode of communicating it is by contact of the lips, and that it affects all classes indiscriminately. It is probable also that Martial alludes to the same form of disease when speaking of shining pustules on the face (pustulæ lucentes[2]); and that it was occasionally liable to assume a grave aspect in some

[1] Lib. xxv. and xxvi.

[2] Epist. ad Bassum, lib. ii.

instances may be inferred from his expressions in this verse :—

"Inque ipsos vultus serperet atra lues."[1]

There can be little doubt, moreover, that Horace, in the following humorous lines, alludes to the indelible cicatrices left by this or some other form of syphilitic sore on the face of Messius :—

". . . . At illi fæda cicatrix
Setosam lævi frontem turpaverat oris.
Campanun in morbum, in faciem permulta jocatus."[2]

The writers who have described the venereal epidemic of 1494-97, confounded syphilis and sycosis, evidently regarding them as being intimately allied in their nature and origin. The treatise on this subject, dated 1514, of Wendelinus Hock de Brackenaw, "De Morbo Gallico cui titulam fecit Mentagram, sive Tractatum de causis, præservativis regimine et curâ morbi Gallici," regards sycosis as a venereal sequela, and recommends the same plan of treatment for one and the other.[3] Joannes le Maire has recorded his opinion hereof in the following quaint rhymes, given in the antique French of his day :—

"L'ung la voulut sahafati nommer
En Arabic; l'autre a peu estimer
Que l'on doit dire en Latin, Mentagra,
Mais le commun quand il la rencontra,
La nommoit *Gorre*, ou la Verolle Grosse,
Qui n'espargnoit ne couronne ne crosse."

Paulus de Sorbait, in his treatise "De Morbo Gallico et Gonorrhœâ reliquisque symptomatibus ei supervenien-

[1] Lib. i., Epist. de Festo. See also *Dict. de Méd.*, art. Sycosis.—Cazenave.

[2] Hor. Sat., lib. i.

[3] Astruc, *De Morbis Venereis*.

tibus," says: "Morbum Gallicum non differe nec a Mentagrâ, quam Plinius narrat (*Hist. Nat.*, lib. 25, cap. 1), nec a Lichenibus aut impetigine quæ ab Hippocrate describatur libro de morbis mulierum."

Vercellonus also, who, in 1716, wrote a comprehensive account of the diseases resulting from syphilitic infection, considers mentagra to be one of the disorders of the skin which supervene upon gonorrhœa.

Cazenave, on the contrary, regards sycosis and syphilis in the light of two very different diseases. He distinguishes tubercular syphilis, with which variety sycosis is most liable to be confounded, by the hardness and rounded or oval form of the tubercles, and their copper-coloured hue; they are said also to be less elevated above the surrounding surface, and to penetrate more deeply into the skin. Besides which, they are liable to terminate in ulceration, the sores becoming coated with thick, dark-coloured crusts, leaving cicatrices of a particular kind. "The tubercles of sycosis," he says, "are irregular in form, complicated with hypertrophy of the cellular tissue, and never ulcerate." But although the tubercles may not ulcerate, they do sometimes suppurate, and leave indelible marks of their former existence.

This author, however, has failed to furnish an instance wherein the origin of sycosis was satisfactorily shown. In the cases mentioned at page 69, preceding, as well as in Case XXXII., the tubercles certainly were wanting, both as to the venereal tint and also as to the ulcerative tendency noticed in the genuine syphilitic tubercle; but this may be attributable to changes which time is wont to operate, and the modifying influences due to the nature of the constitutions through which it had passed. In Case XXIX. the disease was cha-

racterized by the most exact indications of sycosis; and if the symptoms which arose in the wife and offspring, together with the preceding history of the father, be duly considered, the notion of its venereal origin will appear to be well grounded. The tubercles in this their earliest stage retained one suspicious trait of their syphilitic derivation, namely, the copper-coloured tint, which had led several medical men to the true supposition as to its primary cause. It remains to be seen whether the same form of disease will appear at a more advanced age in his unfortunate son.

Since the preceding report was written, this boy has died of cerebral disease, at the age of eleven years.

It is impossible, however, that any satisfactory explanation can be rendered of the proximate causes of these changes, and the precise conditions which immediately precede the development of diseases to which a predisposition was transmitted hereditarily, until the researches of animal chemistry shall have been greatly extended. In those in whom any taint is supposed to have existed from birth, the blood, as well as the secretions, should be accurately analysed at different stages of life,—during infancy and childhood, and at the several critical periods of life, until the time arrives when the impending evil may be reasonably expected to break forth. Without some such procedure, all our reasonings upon the subject must be speculative and uncertain.

There can be little doubt that in all diseases to which a predisposition was inherited, the blood is the part of the system where the germ of the hidden evil is to be found, the pabulum which fosters its existence and growth, the agent by which its presence at length be-

comes more palpably manifest, and the medium through which alone we can remedially or curatively operate.

It is highly probable that the blood, if carefully analysed soon after birth in an individual so circumstanced, would be found to possess some characteristic peculiarity in the arrangement of its elemental constituents; that this peculiarity in most instances, if further examined, would be seen to increase, progressively with the growth of the body, without interfering, for a time, with the healthful discharge of its functions. But it is only to a certain extent that the changes here implied are compatible with a state of health; a degree of disproportion is sooner or later arrived at under which the blood becomes unfitted for the various organic requirements, and the subsequent changes, if uninterfered with by treatment, are rapid and destructive. It is unknown to what extent the blood-elements may deviate in their relative proportions from what is considered the healthy standard, without visibly prejudicing the integrity of the system. In spontaneous anæmia—a disease whose proximate condition consists in deficiency of the globulin—Andral found, that when the cachectic changes first presented themselves, this element of the blood had already become considerably reduced in quantity. In sixteen patients whose blood he analysed while the disorder was yet in the incipient stage, the average amount of the globulin had fallen from 130—its healthy standard proportion—to 109 per 1000; and in twenty-four cases in which the analysis was practised at a more advanced stage, the average was only 65 per 1000.[1]

Respecting the treatment of hereditary affections generally, little need be said. It will be sufficiently evident

[1] *Essai d'Hæmatologie Pathol.*, p. 49.

that when a disease, the elements of which were inherited, has once been developed into palpable form, any efforts at what is termed a radical cure will probably be difficult and uncertain. Medicinal agency, to be really beneficial, must be essentially of the preventive kind, and ought to be practised while the impending evil remains yet unseen. Parents who are aware of their own infirmities, or those of their ancestors, should at once abandon the foolish and prejudicial attempt at concealment: they are thus guilty of an injustice to themselves and their offspring. Many diseases might doubtless be modified or even prevented in the offspring, if the tendency thereto were in due time properly and without reserve made known. The physical maxim of Mercatus, which implies that wherever a disproportion in the elements of the blood is found to exist, an attempt should be made to restore it to its healthy balance, has reference especially to the prevention of disease. "Medica facultas solum docet demere, quod superabundat, et quod deest, addere."[1]

These general considerations disposed of, I will now proceed to notice the leading points of a few cases illustrative of the lasting effects of the syphilitic poison in the male subject, having reference especially to its effects upon the constitution from which it was believed to have been exterminated, and to the phenomena which it is capable, in this latent form, of producing in the opposite sex, and in the offspring. The conclusions at which I have ventured to arrive will be given in another place. Dr. Adams wrote with the express intention of founding a doctrine upon evidence derived from the experience of others. He says, "I could relate other instances of

[1] Op. cit., p. 675.

ulcers of this kind (consecutive venereal ulcers), but my wish is to confine myself to such cases as do not rest on my own authority."[1] It is my intention, on the contrary, to derive conclusions from such cases only as have fallen under my own observation; not, however, with a view to found a doctrine, but for the purpose of relating what Nature seems to be in the habit of doing; and because the examples to be detailed in the following pages so nearly correspond with the simple and graphic delineations left by our predecessors.

[1] Adams, *On Morbid Poison*, p. 41.

CHAPTER II.

ILLUSTRATIONS OF TRANSMITTED SYPHILIS.

As medical readers in general are apt to recoil, with feelings of aversion and disrelish, from the perusal of *cases*—a task often regarded by them in the light of an infliction to be escaped from if possible—I can but regret that so much of the matter which I have to communicate is necessarily embodied in this form. It has been my endeavour, however, to divest each observation, as far as was practicable, of all irrelevant and extraneous details; and indeed this has been so much practised—the histories having been cut down to the more important points merely—that on a perusal of them I have felt fearful lest, in several instances, sufficient was not left for conveying a proper knowledge of the phenomena as they are intended to be understood. This curtailment, however, it is hoped, will be compensated for in the remarks offered in the subsequent chapters, where some of the cases will be again referred to in support of doctrines formerly received, but more recently attempted to be subverted. It should be borne in mind, also, that these histories are not those of acute cases, commenced suddenly and finished in the course of a few days, and affecting one individual merely: many of them comprehend a period of several years, and implicate a number of individuals, in whom the disease appears under many varieties of form, entailing results equally variable and dissimilar.

Case I.

INFANTILE SYPHILIS; VENEREAL AFFECTION IN THE MOTHER, CONTRACTED FROM HER HUSBAND, WHO HAD BUT ONE SMALL TRACE OF SECONDARY DISEASE ABOUT HIM.

In February, 1846, I was applied to by a gentleman, nine months married, respecting his wife, who was stated by him to be labouring under what appeared to be secondary syphilis. She was then in the seventh month of her first pregnancy. Three months after marriage she became aware of a vaginal discharge, which she had often had occasion to remark was disagreeable and offensive. In a short time after the first appearance of this, a warty growth was noticed near the entrance of the vagina, which was soon followed by several more; and from this time, the excrescences continued rapidly to increase in size and number, until the boundaries of the orifice had at length become studded with them both externally and within.

Respecting the husband, he stated, that about six months before marriage, he contracted a venereal sore, which, while yet in its incipient stage, was shown to an "experienced druggist," who covered it with caustic and gave him sarsaparilla to take. The ulcer disappeared, and the surface healed speedily; but shortly afterwards, upon the same spot, a small wart sprang up, which had ever since remained: it was situated on the corona glandis, and had gradually increased to the size of a pea, this being about double the dimensions it possessed at the time of marriage. He was considered perfectly cured several months prior to his marriage, and had not again incurred the risk of a fresh infection. No other external symp-

tom existed about him at this time, nor did any appear until several months later—about a year after marriage —when, on account of a crop of roseolous blotches on his face, chest, and arms, he was obliged to submit to an active course of treatment, which was continued several months.

In the wife's case, not only the labia externa, but also the whole vaginal surface, even to its upper part, as well as the cervix uteri, were thickly studded with warty excrescences; the orifice of the uterus being surrounded by a suppurating surface, covered with exuberant granulations. From the inner cervix escaped a sanio-purulent discharge, emitting a peculiarly sickly and offensive odour.

For several days previous to my attendance, she had complained of sore throat; the tonsils were swollen, and the whole fauces presented a deeply-inflamed aspect, interspersed, here and there, with patches of excoriation. Her general health had declined; the countenance was sallow, shrunk, and slightly jaundiced, the voice hoarse, and the act of deglutition attended with suffering.

The treatment adopted consisted in a course of mercurial alteratives continued to ptyalism, and followed by sarsaparilla with iodide of potassium in high doses. The local affection was treated with injections of solution of nitrate of silver and opium, under which the vegetations entirely disappeared before confinement. Delivery took place, with no more than ordinary difficulty, at the full term of utero-gestation. On the third day she suffered an attack of convulsions of considerable violence, succeeded by puerperal mania, which lasted about three weeks, the milk entirely disappearing shortly after its first influx.

The child, plump and healthy-looking at birth, when eight days old exhibited some diffused patches of dark erythema on the nates and face; a few days later, blotches broke out of an irregularly circular shape, with defined boundaries and scurfy surfaces, and others of similar aspect were thickly scattered over the chest and extremities. The mouth and throat also became sore, the nose obstructed, the anus angry and fissured. During the treatment, which consisted in the exhibition of hydr. cum cretâ, a smart attack of diarrhœa came on, which seemed materially to hasten the cure. The patient was cured at the age of six weeks.

Case II.

COMMUNICATION OF SECONDARY SYPHILIS FIVE MONTHS AFTER THE DISAPPEARANCE OF THE PRIMARY AFFECTION; REPEATED OUTBREAK OF THE SYMPTOMS AT DISTANT INTERVALS; HEREDITARY TRANSMISSION.

On the 8th of February, 1843, I saw the wife of a baker, two months married, affected with an eruption on the skin, which I suspected, on the first examination, to be venereal. It consisted of a number of copper-coloured blotches, scattered over the face and forehead, more numerous still on the arms and chest; they were irregularly circular in shape, from two to six or eight lines in diameter, their copper-coloured hue contrasting remarkably with the unusual paleness of the surrounding skin. The mouth was excoriated, and the fauces swollen and erysipelatous. She complained of heat and smarting of the vagina, of which the labia were red, swollen, with patches of excoriation on their opposing surfaces, and there was a plentiful discharge of a purulent character.

The husband had no external appearance of a suspicious nature, nor any evidence whatever, so far as I was able to ascertain, of the existence of a syphilitic taint in his own person. He frankly confessed, however, that he had laboured under an attack of syphilis six months before marriage, for which he was under the direction of a charlatan, who gave him "blue pills" and other medicines to take. After having taken *four* of the pills, his mouth became slightly sore, whereupon the mercurial was discontinued. The ulcer, to which a lotion and ointment were applied, healed favourably, and he emphatically declared that, from all outward appearance, he was perfectly cured at least five months before marriage. He has not since had a primary affection, nor incurred the risk of a repetition.

There appeared no reason to doubt the truth of this statement: the man's character was good, his position respectable, his manner frank and candid, and my own inspection satisfied me there was no ocular evidence of disease having very recently existed about him. The wife's symptoms, therefore, not being looked upon, after this inquiry, as specific, were treated with saline aperients, mucilaginous drinks, liquid diet, rest, and soothing applications. These means seemed to act beneficially during the first few days; but at the end of ten or twelve days the symptoms were manifestly aggravated, and ere long presented unmistakeable evidences of their specific nature. Fresh blotches continued appearing, until the cutaneous surface was closely occupied by them in most parts of the body. The cheeks, gums, and tongue were more severely excoriated and aphthous, the fauces highly inflamed and patched with ulcerations, and the denuded spots on the labia pudendi were soon deepened into ex-

cavated ulcers of chancrous aspect, with thickened bases and yellow surfaces. I have seldom seen a case of what may be called acute secondary syphilis, inclined to run a rapid and destructive course, more characteristically marked than the one under consideration.

I felt no hesitation, at this juncture, to pronounce the case venereal, which opinion was fully confirmed as to its correctness by occurrences which happened about a fortnight afterwards, as will presently appear. The patient was ordered to take six grains of calomel combined with an equal amount of extr. coloc. co. with a view to rouse the action of the chylopoietic viscera, and afterwards one grain of calomel combined with a quarter of a grain of extr. opii every four hours. This was continued until the action of the medicine was slightly perceptible in the mouth, when inunction was substituted. The mercurial action was in this manner slightly kept up for about three weeks, although salivation was never completely established. The beneficial effects of the remedy were perceptible even soon after the aperient dose of it, and the subsequent improvement was for a time satisfactory. After a few weeks scarcely any eruption was visible on any part of the skin, with the exception of a number of brown cicatrices, showing the former seat of the more severe patches. The labia vaginæ were reduced in size, the ulcerations filled with healthy granulations, the hardness and thickening upon which they were situated gradually subsided, and the state of the fauces was in like manner satisfactory. At this stage the use of mercury was discontinued, although, as I now believe, much earlier than it ought to have been. She now took the ioduretted sarsaparilla for three or four weeks longer; but some days before the completion of this period the

cure was apparently perfect, and it was with difficulty she could be prevailed upon to continue the treatment so long.

About a month after the commencement of my attendance, a circumstance occurred which established the venereal nature of the patient's ailment beyond the possibility of further question. The husband had for several days complained of languor, loss of appetite, rigors, intense headache, fulness of the nose and eyes—symptoms usually referred to the effects of cold. Very soon the throat began to be sore, the eyes red and watery, and the scalp extremely tender. He was ordered saline aperients and rest. One morning, having at my suggestion taken an antimonial sudorific the previous night, the head symptoms were suddenly alleviated; but it was found that a crop of well-characterized syphilitic roseola had broken out on the cheeks and forehead, and a few spots were noticed on the chest and arms. Fresh eruptions continued appearing for several days, until the cutaneous surface was almost covered; the throat became severely ulcerated, and the symptoms only subsided by the use of mercury, followed by ioduretted sarsaparilla, the latter being continued for upwards of two months.

In August of the same year, nearly four months after the discontinuance of treatment, the wife had an attack of syphilitic sore throat, requiring the free application of caustic remedies and the use of ioduretted medicine. Her health during the interval had been variable; on the whole, much less comfortable than before marriage. A leucorrhœal discharge of disagreeable colour and offensive odour, not putrid, but sickly, had continued without ceasing, attended with aching of the loins, and a sense of general oppression. She had ceased to menstruate three

months, and believed herself to be *enceinte*, a circumstance which in some measure reconciled her to the endurance of her other troubles. The syphilitic symptoms disappeared under treatment in the course of a month, and she remained in tolerable health; the vaginal discharge, however, with constant aching of the loins and slight febrile paroxysms, persisting. She was delivered at the end of the seventh month of utero-gestation, on the 2nd of January, 1844, of a still-born child, with desquamation of the cuticle. Her recovery was slow and unsatisfactory.

A fortnight after delivery, the lochia having ceased several days previously, the same kind of purulent discharge appeared from the vagina in copious quantity, attended with tumefaction of the labia pudendi, which were literally covered, both inside and out, except at the most projecting ridges of the labia, with soft flat tubercles of various dimensions, circular in form, their surfaces secreting an offensive sanies. The throat was swollen and ulcerated; the angle of the mouth on each side was occupied by a tubercle traversed by an ulcerated fissure, and a number of patches of similar character were scattered over the cheeks and forehead. She was again subjected to treatment on the plan previously adopted, continued five or six weeks, after which chalybeates were administered for a period. The sores external to the vagina were treated with nitrate of silver, and an injection of the same was ordered for the relief of the discharge.

Her second delivery took place at the end of the seventh month of utero-gestation, in June, 1846. The child was still-born, and had, as in the preceding case, desquamation of the cuticle. On account of the re-

moteness of her place of abode I did not attend her on this occasion, but only prescribed for her without a personal interview. Her general health was said to have been imperfect, the leucorrhœal discharge having continued without cessation since the previous accouchement. About ten days after delivery she experienced an accession of symptoms precisely similar to those already described: the same form of eruption occupied the face, the throat was ulcerated, the lips cracked, the vagina tuberculated and warty. She again recovered under the adoption of the treatment prescribed—namely, mild mercurials and iodide of potassium—and after convalescence spent a few weeks at the seaside, by which her health was greatly bettered.

I did not see her again until the 5th of March, 1849, when I was present, in accordance with a previous arrangement, on the occasion of her third accouchement. She appeared to be in much better health than I had before known her to be. Utero-gestation had arrived at its completion, and the child, a female, was alive, well-developed, and apparently in good health. Her recovery was speedy and favourable; there was a plentiful supply of breast-milk, and both she and the infant were, to all appearance, doing remarkably well at the end of a fortnight, when my visits were discontinued.

On the thirty-fifth day after delivery my attendance was urgently solicited. The child had been gradually falling away for several days past. I found it emaciated, fretful, and extremely sallow. Its cry was hoarse, the nasal respiration impeded, the lips and gums unusually red and angry, but not aphthous, the corners of the mouth were fissured and irritable. A number of dark-red patches had broken out on various parts of its

body, being most numerous on the nates, about the feet and ankles, then on the face and neck: their character was papular; they were of different sizes, from a single papule to that of half an inch; each of the larger blotches consisting of a group of papules covered with scales bounded by a minute fringe of silvery whiteness. The labia pudendi were greatly swollen, and appeared in a state of phlegmonous inflammation, a purulent discharge issuing from the vagina. Two days later the opposing surfaces of the labia near the urethra were of a livid hue, and several pemphigous vesicles appeared upon them. On the fortieth day these vesicated surfaces were occupied by deep-spreading patches of ulceration, of equal dimensions, as if a slough had separated from them, and they were surrounded by a well-defined, slightly-elevated border; the nates, face, and other parts of the cutaneous surface were still more thickly occupied by lichenous blotches; the mouth was more extensively inflamed, and the voice completely subdued. The patient died on the forty-third day.

Simultaneously with the child's illness the mother's health began to fail. At first the milk was insufficient in quantity; there was occasional nausea, chilliness, and headache; then the nipple became sore, the soreness soon spreading to the areola, first on one side, then on the other; on one side the substance of the breast became hard, nodulated, very tender, having streaks of redness running along its outer side towards the axilla, the glands in which region also became full and tender. The soreness of the infant's mouth was first conjectured to be the cause, then the effect, of these disturbances.

Eight weeks after delivery the mother's health was considerably impaired: she was recovering from an in-

flamed state of the mammary and axillary glands and absorbents of the left side. There was a small fissured tubercle of the left commissure of the lips, and morbid sensibility about the throat, but no eruptions. There was a plentiful sanio-purulent leucorrhœa of offensive character, with irritation about the commissure of the vagina, and great hypertrophy of the cellular structure embracing the urethra. A metroscopic examination of the uterus was now made for the first time, this mode of inquiry having before been foolishly objected to. It may be mentioned that she had never been free from purulent vaginal discharge, when not menstruating, since 1843. The appearances revealed were as follows:—

The lower section of the uterus was in a state of inflammatory hypertrophy. The whole of this part of the organ, brought into view by means of a large instrument, presented a dark-red, shining aspect, upon which were situated several aphthous patches, circular in form, a quarter of an inch in diameter, more or less. The light-coloured crusts covering these patches were easily removed by means of a piece of lint brushed over them, leaving discs of abrasion of corresponding dimensions, with defined boundaries, slightly elevated above the adjacent structure, and minutely granular. Around the orificium uteri was a fissured, suppurating surface of vivid redness, from which blood oozed out on being cleansed with lint.

The treatment—which she was now very anxious to submit to—consisted in the administration of hydrargyri ioduretum, one grain *per diem* in divided doses; this was afterwards increased to three grains *per diem*, and continued, with an occasional intermission of a few days, for five months. She then took the ioduretted sarsapa-

rilla for two months longer. The uterus was repeatedly treated with argenti nitras, applied both to the external surface and through the entire extent of the cervix. The husband underwent at the same time a similar course of internal treatment, with strict injunctions as to sexual isolation. They are now both in excellent health, the first time they have been able to express themselves so since marriage.

The points most worthy of notice in the history of the preceding case are these:—

1st. The communication of secondary syphilis from the husband to his wife; the husband bearing no palpable evidence, at the time of communicating the infection, of its existence in his own person.

2nd. The repeated reappearance of the disease in the person of the wife after long intervals of seeming immunity, a perfect cure having been apparently effected on the occasion of each relapse; and the active prevalence of the poison after an interval of more than six years from the first invasion.

3rd. The deleterious influence of the poison of lues venerea upon the fœtus in utero, conveyed along with the current of the maternal blood.

4th. The evidence of the presence of lues venerea in the female system, manifested by the morbid lesions of the uterus.

5th. The insufficiency of the non-mercurial treatment for its eradication (for the husband, although he took four pills of this kind, could not be said to have been submitted to a course of mercurial medicine), and the insufficiency also of any mode of treatment of short duration.

Case III.

LUES VENEREA, CONTRACTED BY SECONDARY INFECTION; ITS COMMUNICATION TO THE INFANT THROUGH THE MEDIUM OF THE BREAST, AND ITS TRANSMISSION TO THE SUBSEQUENT OFFSPRING; DEATH, PROBABLY FROM DISEASE OF THE WOMB.

F. M. bore her fourth, a female child, at the age of twenty-eight and a half years: the infant, full-grown, appeared perfectly healthy. The three previous pregnancies were equally successful: the offspring survive. During her fourth, the present confinement, her husband contracted a gonorrhœa, accompanied with excoriation of the glans penis, which, by early local treatment, disappeared without further development. He had also an inflamed inguinal tumour, which, however, did not suppurate. The complaint appeared to be perfectly well in the course of three weeks, and he had no secondary symptoms. He experienced, however, a severe attack of articular rheumatism about six months afterwards, which confined him within the house several weeks.

The wife, a firm, plump, stout person, of light ruddy complexion, and of a healthy family, became aware of a plentiful leucorrhœal discharge of a greenish-yellow colour in the third month after delivery. It was accompanied by an inflamed state of the vulva, irritable bladder, severe pain in voiding the urine, and a number of flat tubercles about the orifice. The complaint was considered by the medical attendant to be gonorrhœa. For this she took appropriate remedies, and made use of caustic applications, under which she got apparently well. About two months afterwards, her general health having become considerably impaired, she had a crop of eruptions

in form of circular patches of a deep-red colour (roseola syphilitica) on the face, arms, and chest, with sore throat, intense inflammation of one eye, and return of the breaking-out about the vulva, the discharge from this part continuing. She was several months under treatment, and got rid of all the symptoms, with the exception of the vaginal discharge. She had never before been subject to leucorrhœa. But although the complaint seemed to have disappeared, her general health was still infirm, and was never again brought to its original standard.

The infant, plump and healthy at birth, began at ten or twelve weeks old to be feverish and fretful; its flesh was soft and flabby. At the age of four months its mouth and throat were excoriated, its voice husky, and broad patches of eruption appeared on the nates. The skin was soon afterwards thickly sprinkled with dark-coloured scaly patches, apparently of syphilitic character, and it died, cachectic, at the age of sixteen months.

The next six pregnancies terminated favourably at the full period of utero-gestation. The child in each case appeared healthy at birth; but each had purulent ophthalmia, coming on about the third day after birth. One lost the sight of both eyes from escape of the humour during the acute stage of the complaint. All had attacks of dark-red, scaly eruptions, which came out about the end of the second week. They first appeared on the nates, then on the face and limbs, and soon extended over the entire body. They had spongy gums, sore throat, husky voice, stoppage of the nose, and fissured lips and anus. Five of them died before the age of four months; the remaining one lived in misery to the age of one year and five months. Her eleventh pregnancy ended in an abortion at three months.

The preceding account was frankly given by the husband and wife conjointly, and confirmed by the accoucheur who had been in attendance. The remaining part of the history came in great measure under my own observation.

During her twelfth pregnancy she was under my care for symptoms threatening to produce abortion, of which she was relieved by means of treatment, and delivery was delayed until the completion of the natural term. I did not suspect, at this time, the existence of any venereal taint. She was delivered on the 25th of March, 1847, of a full-grown, healthy-looking fœtus.

On the third day a severe attack of purulent ophthalmia came on, which was promptly and actively treated with success; but the eyelids remained tender and irritable. In the third week an eruption of papular patches, in groups, appeared on the nates, and in a few days the face and neck were occupied by them; at a later period the feet and chest became affected. Soon after their first appearance the blotches were covered with dry scales, terminating in a minutely-fringed border of silvery whiteness, upon an areola of a dark-red colour, fading away in the surrounding skin, which was of a dry parchment-like hue. A little later the mouth and throat became sore, the nasal breathing noisy, the angles of the eyes and lips ulcerated, exuding a gummy secretion, and the arms erythematous and fissured. The child died on the forty-fourth day.

The mother had still the same kind of discharge as before mentioned. The linen which bore the stains thereof, presented patches of a greenish-yellow colour. Its appearance under the microscope showed a mass of epithelium scales mixed up with a multitude of pus-globules floating in a muddy serum. The lower section of the uterus was

in a state of inflammatory hypertrophy; its surface was mottled, of a dark-red colour, its aspect being very similar to the appearance commonly denominated the nutmeg liver, with several flat tubercles raised above the surrounding surface, and covered with soft ash-coloured crusts, which were easily removed by means of lint. The orifice of the uterus was surrounded by a ring of vivid redness, and a purulent fluid issued from within, which was unmixed with epithelium. The adjacent vaginal membrane was granular.

The treatment consisted in the administration of oxymuriate of mercury in decoctum hydrolapathi, and she seemed to be perfectly well at the end of two months: indeed, she confessed that her health was better than it had been for eleven years previously. During the treatment, nitrate of silver was repeatedly applied to the uterus; the vaginal discharge was much diminished in quantity, though not entirely arrested.

Her thirteenth pregnancy ended at the full period in the birth of a still-born male child. A train of symptoms similar to those she had formerly experienced supervened, but for which no treatment was adopted.

She was delivered of her fourteenth and last child in October, 1849, on which occasion she nearly lost her life by hæmorrhage. The infant, at first plump and healthy, in consequence of its mother's feeble state of health, was deprived of its natural means of support. It had no ophthalmia, nor any of the train of symptoms from which its predecessors had suffered; but it gradually pined away and died, extremely emaciated, at the age of twenty-three weeks.

The mother never afterwards recovered sufficiently to leave her room. I did not attend her throughout her

last illness; but there is little doubt that she sank from malignant disease of the womb. This is rendered highly probable from the fact that, during the puerperal period, a profuse discharge from the vagina came on, of a sanio-purulent character, occasionally mixed with blood, and so offensive that it scented the whole house. It continued in abundance until her death, which took place in July, 1850.

The preceding case presents the following points worthy of notice:—

1st. The communication of the syphilitic poison from one who had only once had a mild form of gonorrhœa; for even supposing the excoriation mentioned to have been of chancrous nature, this was completely removed, as well as the urethral affection also, before the risk was incurred of inoculation by sexual contact. The absence of eruptive disease in the husband, and the rheumatic affection alluded to, countenance the supposition that the complaint was simply gonorrhœal in its form at the onset.

2nd. The transmission of the taint from the mother to her infant, through the medium of the breast, during her fourth puerperal period.

3rd. The persistence of the disease in the mother through a long series of years, as manifested in its effects upon her offspring, without other indications of its presence in her, save its characteristic features in the uterus.

4th. Its effect upon the uterus, which, it is extremely probable, was instrumental in producing that malignant change which caused her death.

It may further be remarked that there appeared to be no grounds whatever for suspecting the husband guilty of any fresh contamination after that already alluded to; his declarations to this effect may, I think, from an intimate knowledge of his character, be relied upon.

Case IV.

SECONDARY SYPHILIS OF EIGHT YEARS' DURATION AFTER A PRIMARY AFFECTION; HEREDITARY TRANSMISSION; DISEASE OF THE ULNA; CURE.

In September, 1845, an infant, fifteen weeks old, was brought to me in an advanced stage of venereal cachexia. The skin of the face, head, limbs, and portions of the body, was in great measure occupied by eruptions of a very mixed character. Those on the face and forehead, and about the neck, had a pustulo-crustaceous appearance, in size varying from a quarter to half an inch in diameter; they were in three or four places confluent, but generally discrete. They were covered with dark-brown crusts, which, on being separated, left a bronzed, soft-looking surface, slightly raised at the edges, and a little depressed in the centre, discharging first a little serum, then a gummy matter. They were surrounded by brick-red areolæ. Several cicatrices existed, showing the situation of sores which had passed away. On the legs the patches were more decidedly papulous, arranged in circular groups of different sizes, scaly, surrounded by a border of redness which was not so intense as elsewhere. The feet were scurfy. The labia vaginæ were swollen and inflamed, and excoriated at the upper part about the urethral orifice. At a later period these parts became sloughy, and extensive corrosion would probably have taken place had life been prolonged. The child died at the age of eighteen weeks.

The miserable creature was the issue of the seventh pregnancy of its mother, who seemed to be acquainted with the nature of the disease under which the child was

sinking, as she stated that the whole of her previous offspring, born alive, four in number, had died from disease of a precisely similar character. She was thirty-two years of age, and had been married eight years. The following is the account of her first illness in this form, as given by herself and husband conjointly :—

Very soon after marriage, at the age of twenty-five, she contracted the venereal disease from her husband, who appears to have had it at the time of their union, although, as he himself states, not aware of the circumstance. The disease was probably in the primary form, as she had several hard, extremely painful sores at the orifice of the vagina, inguinal abscess on each side, which did not completely heal for many weeks, ardor urinæ, and free leucorrhœal discharge of purulent character. The marks of the inguinal abscesses and syphilitic ulcers are at present characteristic and indelible. She took pills of a red colour (pil. Plummeri) for a length of time, but does not remember that her gums were made sore by them—certainly she was never salivated. Before the abscesses were healed, being a few months pregnant, a great number of red blotches came out on the face and forehead, neck, arms, legs, and other parts of the body, and at the same time the throat became sore and the eyes inflamed, so as to require leeching and the application of caustic. The treatment was continued several months, but she did not, even then, think herself perfectly cured, although the medicines were discontinued.

The child with which she was pregnant was born on the 4th of March, 1837, at the full term of utero-gestation. Well-grown and healthy-looking at birth, it began soon to be constantly fretful, and rapidly wasted. At the age of ten or twelve days a crop of scaly blotches

broke out on the face, neck, nates, and elsewhere, accompanied with soreness of the mouth and eyes. By the use of a number of grey powders the symptoms were ameliorated, and its health seemed to improve for a time; but repeated relapses took place, and ended fatally at the age of two years and a half. The second child, born June 4, 1839, died at the age of thirty days; the third, born August 27, 1840, died at the age of twenty-five days; the fourth, born September 24, 1841, died at the age of five months and a half; each having a precisely similar train of symptoms. She had then two abortions in the fourth month, after which followed the seventh pregnancy, already described in the first paragraph.[1]

During each puerperal period she experienced an attack of fever more or less severe, coming on with rigors, and attended with headache, thirst, soreness of the throat, and peritoneal tenderness; at this time also the vagina became highly irritable and inflamed. The yellow leucorrhœal discharge, which first made its appearance during the acute stage of the primary complaint, has never since been absent, and it is principally to this "constant waste" that she attributes the feeling of languor and inaptitude for exercise which has ever since oppressed her.

The lower section of the uterus, examined two months after delivery, was tumid, hard, nodulated; the orifice was surrounded by a suppurating surface of highly irritable aspect. External to the border of this circle, the cervix presented a speckled appearance of a liver colour, upon which were situated several small rounded patches of the mucous tubercle, covered with a light

[1] The above dates were found duly recorded in a family Bible, containing entries of the births, marriages, and deaths of other members of the same family.

grey soft crust, easily removed by lint. The vaginal membrane appeared healthy. The patient was placed upon a course of treatment which was intended to be continued until a healthy condition should be established; but after the death of her infant I lost sight of her for many months.

She again solicited my advice on the 19th of June, 1846, being in the seventh month of her eighth pregnancy. Her health was much impaired; she was greatly tormented with pain of the right ulna, upon which was a tumour, the size of half a walnut, hard, and extremely tender. She was also distressed with pain around the lower part of the person, and had the sanio-purulent leucorrhœa as formerly. The lower section of the uterus retained in appearance the same liver tint and texture already noticed, with scattered patches of aphthæ, and irritation around the orifice. She now expressed her anxiety and willingness to submit to any plan of treatment calculated to restore her health and save her offspring. She was accordingly ordered to take protoiodide of mercury, in doses of half a grain, thrice daily; this was gradually augmented to twice that quantity, and continued until near the time of delivery. The more urgent symptoms were relieved by repeated application of leeches and fomentations to the periosteal tumour, and anodyne medicines. A few days before delivery, the mouth being tender, the protoiodide was discontinued for a time, and the ioduretted sarsaparilla substituted. After her accouchement, the mercurial was recommenced and continued about two months longer, her gums being severely mercurialized; then the ioduretted sarsaparilla was again had recourse to for a season, when her health seemed to be perfectly restored, with the exception of the swelling

on the arm. She was delivered on the 12th of August, 1846; but the infant, who was literally devoid of cuticle, lived only a few minutes.

Her ninth pregnancy ended, July 8, 1848, in the birth of a full-grown healthy-looking female infant, who is now (August 24, 1850) in vigorous health, and has not experienced a symptom of the disease under which her predecessors had suffered. The mother also continues perfectly well as to her general health, although still inhabiting the same miserable hovel where I first found her. At the commencement of her last pregnancy, the periosteal tumour before noticed formed itself into an extensive abscess and burst, giving exit, in course of time, to a sequestrum of dead bone, and from time to time to several smaller fragments. The abscess, although much contracted in size, is still open, and further exfoliation will probably take place. The uterus is perfectly healthy in appearance, and the morbid discharge is no longer seen.

The preceding case illustrates convincingly the following points:—

1st. The inveteracy and persistency of the venereal poison when imperfectly treated in the first instance, and its power of entailing consequences of a very disastrous description.

2nd. Its transmissibility to the offspring to an indefinite extent.

3rd. Its peculiar effects upon the uterus after all outward symptoms of its presence have disappeared.

4th. A tendency to the formation of destructive ulceration of the genital organs in the female infant, very similar to a complaint described by previous authors as a simple form of disease.

For the result of the treatment, see Chap. VI., ex. iv.

Case V.

COMMUNICATION OF SECONDARY SYPHILIS FROM HUSBAND TO WIFE; TRANSMISSION OF THE DISEASE TO HER INFANT THROUGH THE MEDIUM OF THE BREAST; ITS EFFECTS UPON THE UTERINE SYSTEM OF THE MOTHER.

In February, 18—, I attended a lady in her first confinement. Her recovery was speedy and favourable, and her infant, a female, was remarkably well-grown and healthy. At the age of three months, when vaccinated, she was still in health. At the age of ten months she was a remarkably fine child, and the health of her mother was also unexceptionable.

At this date I treated the husband for a primary venereal sore. I prescribed mercury, but having a prejudice against this drug, he refused to take it, beyond a few small doses, so that recourse was had to iodide of potassium, under which, to all appearance, he got speedily well, and on account of the nature of his commercial engagements, was away from his wife for more than two months after every outward manifestation of the disease had left him; that is to say, until the child was nearly thirteen months old, at which time he returned home, having incurred no risk, since the reception of the disease, of infecting his wife.

Two months later, the child, being fifteen months old and still at the breast, had a crop of scaly blotches on the face and forehead, the nates, thighs, and abdomen, with sore mouth, noisy breathing, a bad complexion, and was extremely fretful. The symptoms were greatly ameliorated by the use of hydrarg. cum cretâ, and she seemed to recover. The mother at the same time complained of

ardor urinæ, excoriation of the vulva, and leucorrhœa, with tenderness of the nipples. A few doses of alterative and aperient medicine, with the local use of lotio plumbi, relieved these complaints, and both child and mother soon appeared much better. The leucorrhœal discharge, however, which was of a purulent character, did not cease.

At the age of eighteen months the child, who, in consequence of her indisposition and apparent inability to swallow a more solid diet, was still fed at the breast, had another accession of eruptions more abundant and lasting than the preceding one. The throat, externally, was perceptibly swollen, the mouth inflamed and excoriated, the lips were cracked and angry, the eyes tender, the voice was husky, and the nasal breathing greatly incommoded. The cutaneous blotches were most numerous on the nates and face, more scattered on the extremities, still more distant on the body, except the upper and fore part of the chest. A yellowish purulent secretion (blennorrhœa) escaped from the vagina, of which the labia were swollen and irritable; the anus was surrounded by a broad areola of papulous erythema. There was tumidity of the abdomen, and dropsy of the ankles and feet. These symptoms were not recent: they had existed several weeks, the little patient having, unknown to me, been under the care of a female practitioner of some celebrity for her skill in the treatment of children's complaints. In addition to the symptoms enumerated, one or two lymphatic glands of the parotid region on one side of the neck, previously enlarged, began to inflame, and in a short time terminated in abscess, whence escaped a considerable quantity of flocculent and very offensive pus. The child died at the age of twenty months.

My advice was solicited at this juncture more espe-

cially on the mother's account, who, having during a few days experienced pain and irritation of the left breast and its nipple, and of the axillary glands, had been suddenly seized with an attack of syphilitic inflammation of the throat, and iritis, requiring an energetic plan of treatment. She directed attention at the same time to a distressing soreness of the labia pudendi, on which were found a number of flat tubercles, with much surrounding tumefaction and irritation, and an abundant puriform discharge from within. The lower section of the uterus was tumid and abnormally firm, presenting several aphthous patches on the dark glistening surface, with escape of purulent secretion from the orifice. On the abatement of the acute symptoms just referred to, a violent attack of metro-peritonitis came on and nearly proved fatal: this was before any local treatment had been adopted for the uterus, and before mercurial action was perceptible in the ordinary way. It appeared to have been the result of imprudent exposure to an inclement atmosphere. She was under treatment several months, and seemed to have recovered, but sank some months later under a relapse of metro-peritonitis.

The foregoing case has these points worthy of notice:—

1st. The symptoms under which the wife laboured were syphilitic in their nature, yet was there no evidence that the disease had been communicated to her in its primary form.

2nd. The disease which proved fatal to the child was also undoubtedly syphilitic, and this could only have been communicated through the medium of its mother's milk.

3rd. The tendency which syphilis manifests to affect

the genital organs, although introduced into the system by a different channel, as was seen in the suppurative action set up within the vagina in the infant, as well as in the continuance of morbid action in the uterus of the mother after all external symptoms had disappeared.

Since the first narration of this case, the father has had relapses of syphilitic symptoms. He is the second time married; and although for a length of time he was apparently well, he has recently exhibited traces of his old ailment, the effects of which have been communicated to his second wife, and entailed upon his offspring. Further allusion to this case will be made in Chapter VI., where the results of a curative course of treatment are given.

Case VI.

SECONDARY SYPHILIS TWO YEARS AFTER AN IMPERFECTLY-CURED PRIMARY AFFECTION; ITS HEREDITARY TRANSMISSION.

E. B., a patient of St. Mary's Hospital, aged thirty-six, of dark complexion, fair, waxy skin, brought her infant, eighteen weeks old, July 22, 1846, in the last stage of venereal cachexy. The whole cutaneous surface, with the exception of a portion of the abdomen, outer part of the thighs, and upper arms, was occupied with blotches of various characters. On the face they presented an appearance of psoriasis or lichen, on the nates they had more of the flat tubercular character, and on the extremities were groups of papules of lichenous character, covered with thin, dry scales, all being surrounded by a coppery areola, which gradually faded away in the dry parchment-like skin. Of the blotches

on the face, the more recent ones were covered with crusts of a dirty grey colour, others were dark brown, or nearly black. From some of them the crusts had fallen off, leaving a deep red cicatrix, glazed, and minutely wrinkled. The features appeared old, shrunk, dry, and furrowed; the eyes were exceedingly tender, the eyelids inflamed, uneven, and without hairs; at the outer canthus of each was an ulcerated fissure. The nasal breathing was noisy, the voice subdued to a whisper, the mouth puckered, its commissures fissured, the fauces, gums, and inside of the lips and cheeks inflamed, and here and there excoriated. The skin around the anus and on the scrotum was inflamed, and an ulcerated fissure occupied the situation of the scrotal raphè. The invasion of the symptoms dated from the third week of life.

It could scarcely be hoped that medicinal treatment would accomplish any beneficial change upon a case of this description. Inunction with unguentum hydrargyri was practised upon the abdomen, and small doses of potas. iod. in sarsaparilla given; these seemed for a few days to be attended with benefit; but the child died a fortnight afterwards, at the age of twenty weeks.

The mother stated that she had borne nine children previous to this, of whom five survive: the rest died of measles and other diseases incident to infant life, but none of them exhibited symptoms similar in character to those here described.

She had contracted a primary venereal affection from her husband two years and three months previously—namely, in March, 1844. Two hard, excavated sores were situated within the labia pudendi, one opposite to the other; these were followed by inguinal abscess on the right side, which was at least two months in healing.

She had several hard swellings in the left groin also, the glands in this region being still indurated. She was under treatment by an irregular practitioner employed by her husband three or four months, during which time she took a great quantity of medicine, but was never salivated. She became pregnant about ten months after the period when the cure was said to have been completely effected, and was delivered, March 17, 1846, of the child whose history is now recorded. During the whole of this pregnancy she experienced a state of rawness and smarting about the vulva, with a constant leucorrhœal discharge, which had existed from the first, of a disagreeable colour and odour, with occasional attacks of sore throat.

On examination a few days after her application on the child's account, the lower part of the uterus was found enlarged, painful under slight pressure, tense, of a shining erysipelatous aspect, and occupied by aphthous patches covered with a soft grey pellicle, easily removed by lint. She submitted to a short course of treatment, from which considerable relief was obtained; but soon after the death of her infant, judging herself in a more comfortable state of health, she became negligent, and shortly discontinued her visits.

Her next pregnancy terminated at the full term of utero-gestation, in the birth of a female infant, December 17, 1847. The child, originally well developed and healthy in appearance, was brought to me at the age of twenty-six weeks, suffering from excoriation of the mouth, sore throat, husky voice, obstruction of the nose, fissured lips, tender eyelids, with photophobia, inflammation around the anus, and of the parts about the orifice of the urethra; a phyma on the right buttock, one on the inside of the

left thigh, and one on the arm. The skin was of a waxy paleness and dropsical, but devoid of eruption. A soft tubercle, the size of a pea, occupied the point of junction between the nose and upper lip. This tubercle was divided transversely by an ulcerated chink, and surrounded by a copper-coloured blush extending upon the side of the nose, upon the lip, and within the nostril. There were also several enlarged lymphatic glands at the corresponding side of the neck and parotid region. She got apparently well by means of mercurial inunction and the use of iodide of potassium in sarsaparilla. This patient was brought to me again when nineteen months old, July 3, 1849, with ophthalmia of the left eye, implicating, apparently, all the structures external to the humours. This had all the appearance of syphilitic disease. She was at length restored to health under the adoption of a treatment similar to that above mentioned, but practised more energetically.

When the poor woman appeared in company of her child on the last-named occasion, her left arm was in a sling, and completely useless. She had synovial inflammation of the wrist joint, which was swollen and exquisitely painful; and two or three hard condylomata along the outside of the same limb. She stated that she had never ceased to be troubled with the offensive leucorrhœal discharge formerly noticed, and she had an irritable state of the bladder, which obliged her to rise frequently during the night for the purpose of voiding the urine, which act was attended with suffering. These last-named symptoms were manifestly owing to lesion of structure, which further examination revealed. The uterus was still occupied by disease of specific appearance, the cellular tissue surrounding the urethra was largely thickened, and the

urethral orifice inflamed and exquisitely painful. The treatment adopted consisted of a variety of remedies, of which mercurial inunction and ioduretted sarsaparilla were the most effectual, although they often appeared to lose for a period their beneficial influence. Recourse was had from time to time to chalybeates and other metallic tonics, quinine, guaiacum, taraxacum, and a multitude of external applications; but the cure was still incomplete at the end of fifteen months.

The preceding case is one of a class the most troublesome and disheartening of any to be met with. Had it occurred in a wealthy individual, advice would have been sought from place to place throughout the kingdom, and probably many a well-earned reputation unjustly perilled from want of those requisite qualities in the patient essential to a successful issue, patience and perseverance. It serves to illustrate the destructive tendency of syphilis when imperfectly treated at the onset; its transmission hereditarily; its peculiar and lasting effect on the uterus.

The result of further treatment, and the present condition of this patient, will be found in Chapter VI., following.

Case VII.

SECONDARY SYPHILIS CONTRACTED FROM ONE WHO HAD NO OUTWARD APPEARANCE OF THE PRIMARY AFFECTION; CONGENITAL TRANSMISSION.

On the 10th of November, 1849, a male child, six months old, was brought to me, having a scaly eruption of papular character, arranged in circular groups of different dimensions, and of a brick-red colour, occupying the greater

part of the surface of the body, but being most numerous on the nates and lower extremities, then on the face, chest, and arms, the palmar aspect of the hands, and soles of the feet; the eruption in the two latter situations having the psoriac character. The lips were puckered and irritable, especially at the commissures, the inside of the mouth and throat aphthous, the voice husky, the nose inflamed and obstructed, and the eyes tender and intolerant of light; the sclerotica was injected, and the eyelids and canthi were inflamed. The portions of skin not occupied by blotches were of a sickly paleness; some lymphatic glands at the sides and upper part of the neck were enlarged, and the patient was greatly emaciated. The symptoms first appeared in the fourth week after birth, and had already been submitted to treatment.

The mother, twenty-two years of age, married fifteen months, had huskiness of voice, pain in swallowing, a dark, glistening redness and mottled aspect of the fauces, with superficial ulceration of both tonsils, and a peculiarly offensive breath. She had also fissure—gerçure—of the anus within the external sphyncter, excoriation and tumefaction of the labia pudendi, purulent vaginal discharge, painful enlargement of the inguinal glands, and characteristic disease of the uterus.

The husband frankly confessed that he had primary chancre three months before marriage, with inguinal abscess on one side. His complaint was considered by his medical attendant to have been perfectly cured at least a month before marriage, and he had not since incurred the risk of a fresh infection. He had no affection of the mouth during the treatment, so that it is presumable mercury was not employed. Seven months after marriage, when his wife was six months advanced in

pregnancy, he had a plentiful crop of patches (roseola) which disfigured almost every part of the body, and three weeks later, when these were subsiding, his wife had some scattered patches of like description, with sore mouth and throat. Both appeared to recover speedily under the plan of treatment then adopted.

All the parties were placed under treatment consisting of mercurial inunction continued in the parents to ptyalism, and followed by a course of ioduretted sarsaparilla. The child's restoration was effected by mercurial friction alone, but it was doubtless influenced materially also through the means employed for its mother. The parents appeared to get speedily well; the remedies, however, were continued to the end of three months.

Case VIII.

HEREDITARY TRANSMISSION OF SYPHILIS SEVERAL YEARS AFTER ALL OUTWARD MANIFESTATION OF THE DISEASE HAD DISAPPEARED.

J. R., aged thirty-three, of dark complexion, vigorous fibre, remarkably well proportioned, brought her infant to me on the 19th of September, 1846, at the age of forty-three days. Its body was thinly covered with scaly eruptions of papular character, in irregular groups, composed of small circular spots, of a dark-red colour, which had first appeared eight or ten days previously. They were most numerous on the face and scalp (which was almost devoid of hair, although there had been a plentiful crop originally), then on the nates and thighs, more scanty on the neck and arms. Its face was shrunk and furrowed, skin pale and parched, eyes and eyelids tender, lips puckered and ulcerated at the commissures, mouth

and fauces inflamed and patchy. Its nasal respiration was noisy, and the voice completely lost. The child was greatly emaciated, and had anasarcous ankles. There appeared no hope of effecting any good by treatment, which was accordingly merely palliative, although death did not happen for more than three weeks after, at the age of sixty-seven days.

This patient was the issue of its mother's seventh pregnancy. Her first and second children survive. She contracted primary syphilis from her husband two years after the birth of her second child, not being at the time pregnant. She remembers having several distinct ulcers on the external genitals, with a plentiful vaginal discharge of yellow colour, which has ever since continued. The sores were treated with caustic, and the medicine she took produced salivation. She had afterwards scaly eruptions on the face, forehead, chest, and limbs, and a very violent attack of inflammation of the eyes, for which she was treated by Dr. Mackenzie of Glasgow. Her following pregnancies terminated as follows:—the third (counting the two successful ones) at eight months, fourth at eight months, fifth at seven months, sixth at six months, all still-born, and nearly devoid of skin, as she herself declares. All this time she was in delicate health; pale, languid, fretful, with impairment of appetite, disordered secretions, loss of rest, and emaciation. These evils she attributed to the wasting leucorrhœal discharge which was always present when not menstruating.

On examination I found the lower section of the uterus in a state of chronic inflammatory hypertrophy, indurated, angry, patchy, and fissured around the orifice, whence a purulent secretion exuded.

The treatment consisted principally in the administration of hydr. oxymur. in decoctum cinchonæ, and subsequently of the ioduretted sarsaparilla. The uterus was from time to time examined, not so much with a view to local treatment, for this is of little importance in such cases generally, but for the purpose of seeing what change took place during the action of the remedies. The argenti nitras was occasionally applied, although the restoration of this organ to a state of health very little, I believe, depends upon the action of local applications. I have had frequent opportunities of witnessing the steady and gradual subsidence of uterine disorder of the character now under consideration, from the action of appropriate remedies upon the constitution, without any local interference whatever.

This person, who is now (September, 1850,) thirty-seven years of age, has not since been pregnant, nor has she menstruated during the past twelve months. She is in robust health, and perfectly free from leucorrhœa.

Case IX.

SYPHILOID SYMPTOMS IN THE OFFSPRING OF A MOTHER WHO HAD LABOURED UNDER A BLENNORRHŒAL AFFECTION OF OBSCURE ORIGIN; SLOUGHING ULCERATION OF THE PUDENDUM IN THE INFANT.

In the spring of 1843, Mrs. R., thirty-four years of age, had an acute attack of inflammation and swelling of the vulva, profuse yellowish discharge, and ardor urinæ, which her medical attendant denominated gonorrhœa, and treated accordingly. A few weeks later she aborted in the fourth month of pregnancy, and afterwards her health was in an impaired state for five years, the more

prominent symptoms being, dysmenorrhœa, puriform leucorrhœa, pain of the loins and head, disordered digestion, languor, feverishness, and emaciation.

In May, 1845, when in the seventh month of her next pregnancy, she solicited my advice for these ailments, of which the pudendal irritation and discharge constituted the principal features. The upper part of the vaginal membrane was of a deep-red colour, thickened and granular; the cervix uteri appeared erysipelatous, and its orifice was surrounded by a suppurating surface. On expressing my suspicions respecting the gonorrhœal nature of these symptoms, she informed me that similar questions were once before advanced, but that there was no reason whatever to believe that the existing disease was of that nature. It seemed to me probable that pregnancy would be prematurely interrupted, as no indication of fœtal life could be elicited by stethoscopic inquiry. She was accordingly delivered a few days afterwards of a still-born child about seven months grown, with desquamation of the cuticle. Her recovery was tardy and incomplete, as no systematic plan of treatment was followed out.

Her next delivery took place at the full term, March 9, 1846. The infant, a female, vigorous and healthy-looking at birth, had purulent ophthalmia, which commenced on the third day, and on the eighth day, when presented to my notice, was in imminent danger of losing both eyes. There was at the same time in the child inflammation and swelling of the labia pudendi, with discharge, and suppurative inflamation of the umbilicus. These symptoms were speedily remedied by means of nitrate of silver applied to the eyelids, and a lotion of zinc and alumina applied to the other parts. No internal

treatment was had recourse to. At the age of four weeks a crop of scaly papulous patches came out on the face, nates, and extremities, and soon spread over the rest of the body. The mouth and throat were sore, and there was a slight relapse of palpebral ophthalmia. The treatment, consisting in the use of small doses of hydr. cum cretâ, soon produced a favourable change, but the parties did not return, after the second visit, until several months had elapsed.

The same patient was again brought at the age of five months, on the 8th of August, 1846. She was said to have perfectly recovered from the previous attack, and had continued well until the age of four months. Her symptoms were, on this second occasion, emaciation, a peculiar sallowness of skin, lips ulcerated at the angles, mouth and throat sore, voice husky, nasal breathing obstructed, eyelids red, and exuding a gummy secretion. The lower half of the body and lower limbs were mottled with erythematous blotches of different sizes and shades of colour, some having a deep-red, glazed surface, others were grey and slightly scurfy; an areola of papular erythema surrounded the anal orifice. But the symptom to which attention was more particularly directed, was a deep and extensive ulceration of the pudendum, implicating the two upper thirds of the right, and about one-third of the left labium, with their superior commissure and urethral orifice. This was said to have commenced in form of blood-blisters—pemphigus. The surrounding textures, as far as the mons veneris and right groin, were phlegmonous, and in the flexure of the groin was a broad patch of ulceration—not an open abscess—of smaller extent, but similar in character to that on the pudendum. On expressing surprise that application for assistance

should have been so long delayed, it was answered that the child had for some days been expected to die, and it was thought that medicine could avail nothing.

The treatment, consisting in the exhibition of hydrarg. oxymur., and unguent. hydr. nitrico. oxyd. for application, had the most desirable effect, and the cure, although protracted, was ultimately complete. The child's mother was also subjected to a course of treatment with oxymuriate of mercury, but many months elapsed before her health was in a satisfactory state. She was again delivered in April, 1848, of a full-grown child, perfectly sound and vigorous. I visited the family in September, 1850, and found both mother and the two last-named children in the full enjoyment of health. The last child has had no indication of disorder similar to that under which the previous one laboured.

Two points connected with the preceding case appear deserving of comment. It may, with some, be a question whether the blennorrhagic affection under which the woman appeared to suffer in 1843 and afterwards, was to be regarded as a specific disease or not. I have not been able to satisfy myself on the subject by inquiry. She remembers her husband being, for a short time, in delicate health about that period, but she had no suspicion that he had ever violated the matrimonial contract; she has implicit faith in his integrity, which I should grieve to be the means of shaking by my inquiries, however much the knowledge to be thus gained might contribute to a satisfactory solution of the case as respects its pathological history. I cannot help regarding it, however, as having been truly a gonorrhœa; for, besides the assemblage of symptoms attending it, the nature and repetition of the succeeding events conspire to establish this view

as to its origin and character. In the first place, abortion happened during the prevalence of its acute stage; then a second abortion at seven months occurred, when the complaint might be said to exist in the chronic form, the fœtus being still-born and in a state of incipient putridity; afterwards a train of morbid phenomena occurring in the next living infant of a character peculiar, so far as I know, to syphilitic disease. The long continuance of the complaint in the mother, and the repeated relapses in the infant, both which ceased only after the protracted use of mercurial remedies, were further proofs of its specific origin.

Broad patches of ulceration are occasionally met with in cases of this nature. They sometimes occupy one or both sides of the neck, the groin, the ham, or behind the ankle; but most commonly, in the female infant, the upper part of the vagina, and here they are always the most destructive and troublesome, probably on account of the irritation caused by the urine. A complaint of this description attacking the pudendum of children was described by Mr. Kinder Wood,[1] who gave the histories of two cases, with remarks upon ten others, all which had fallen under his notice in the space of nine years. Of these twelve cases ten were fatal, the two recoveries being the only instances in which Mr. Wood's assistance was solicited at the onset of the disease. Similar as to local character, there are yet several points of difference between his cases and those which I have seen. Mr. Wood mentions no pre-existing disease in the parents of his patients, consequently the prevalence of any transmitted taint was not suspected. Nor is it mentioned whether more than one case occurred in the same family.

[1] *Med. Chir. Trans.*, vol. vii. p. 84.

Nevertheless, in the two cases of which some of the particulars are mentioned, there are several accessory features which serve to give them a suspicious character. In both there was described a peculiar pallor of skin, unlike anything he had elsewhere seen; there were aphthous eruptions about the anus and perinæum; and in one of the patients, in addition to the aphthous patches, there were also numerous vesications like small-pock vesicles on the fourth day, appearing both in solitary form and in groups, "and when the tops of the earlier vesicles had come away, the parts beneath were deeply ulcerated." This may have been a form of eczema syphiliticum. Excellently described as Mr. Wood's cases are, and every way sufficient for practical utility, the portrait is nevertheless too defective, both in its physiognomical delineation and in its collateral history, to be available for purposes of accurate diagnosis. Dr. Underwood[1] alludes to a form of gangrenous affection of the pudendum in infants, supervening upon erysipelas infantile. This, however, appears to have occurred principally in hospital practice, where a destructive kind of erysipelas is sometimes known to prevail endemically; and he mentions that such cases, for the most part, occur in infants soon after birth, and always before the age of two months. It would appear from this description that these happen independently of the venereal taint, although the proofs to this end are by no means satisfactory.

[1] *On the Diseases of Children*, ninth edition, p. 130.

Case X.

PURULENT OPHTHALMIA FOLLOWED BY ERUPTIONS OF SYPHILITIC CHARACTER, THE TAINT BEING DERIVED FROM THE PARENT.

On the 8th of August, 1846, R. S., a person of short stature, light complexion, and lax fibre, twenty-three years of age, married five years, brought to me her two only surviving children, both females. These were the fruit of her second and third pregnancies, her first having ended at full term in the birth of a still-born, decayed child. The younger, three months old, was covered almost from head to foot with patches of psoriasis syphilitica, in different stages of maturation and decay. They were of various sizes, from a single small point, which in some places seemed to spring from the centre of an old cicatrix, to groups measuring half an inch in diameter, surrounded by a dark blush of erythema. They were covered with thin, uneven crusts of a grey or brown colour; and those which had separated left the subjacent skin of a bronzed aspect. The child had suffered from purulent ophthalmia, which first appeared a few days after birth, and had been much benefited by caustic applications and the use of a lotion; but a cure had not been effected. The eyelids at this period were granular. These were the other accompaniments:—emaciation, senile features, sore mouth and throat, puckered lips, and noisy breathing. The elder child, two and a half years old, was said to have suffered in a similar manner from ophthalmia, cutaneous eruptions, &c., during the first few months of life, which symptoms had been considerably relieved by applications to the eyes and the use of grey powders; but the eruptions never entirely disappeared,

fresh blotches having come out from time to time in different parts of the body. On the occasion of the present interview there were several eczematous patches about the mouth and on the cheeks, others more nearly of the roseolous variety were situated on the chest and extremities, and a number of dark-red cicatrices were seen in different parts. The child had tender eyes, parotid tumefaction, pain in swallowing, husky voice, sore mouth, and rawness at the angles of the lips. Both children were subjected to an alterative course of treatment, and recovered perfectly. The mother's health was greatly enfeebled, the cause of which, and of the children's ailments, may be inferred from the following statement:—

She contracted syphilis immediately after marriage from her husband, a worthless fellow, who at the time laboured under a primary affection, although, according to his own declaration, he believed himself to have been cured. The contrary was sufficiently proved, however, from the fact of his being confined by an inguinal abscess for some time after their union, and he subsequently had secondary eruptions with ulcerated sore throat. The wife had what I should consider to have been a primary sore, judging from her description of it and the present appearance of the cicatrix near the urethra, with abscess in the groin, and secondary eruptions afterwards. She had, moreover, a blennorrhagia vaginalis of purulent character, which commenced at the period alluded to, and which had never since been absent. They were both treated by an irregular practitioner, and were said to have been cured in the course of a few weeks, soon after which she became pregnant, and was in due time delivered of a still-born child with desquamation of

the skin. She does not know that she took mercury, no affection of the mouth having been perceived during the treatment. She has frequently since had sore throat, which has usually been attributed to other causes.

The cervix uteri was unusually tumid, having an erysipelatous aspect, and its orifice was surrounded by a surface of indolent ulceration, bounded by a raised, well-defined, wavy margin. She was ordered to wean the baby, and to take pil. hydrarg. until the mercurial action should be satisfactorily manifest, and then to use the ioduretted sarsaparilla. These injunctions were imperfectly attended to, and she soon discontinued her visits.

Her fourth pregnancy terminated in January, 1848, in the birth of a healthy-looking, full-grown female child. In the third week, this infant became affected with a train of symptoms similar to those above noticed: a crop of cutaneous blotches on the face, chest, nates, and other parts of the body, with sore mouth, swelling of the throat, œdematous limbs, &c., which, in spite of treatment, did not subside. At this period she was living in a remote district, and was not under my immediate observation. At the age of fourteen months, the child was placed under the care of a practitioner with whom I am upon terms of intimacy. Its body was thickly sprinkled with scaly blotches, which he at once pronounced syphilitic, and denominated impetigo; and it was completely cachectic. Its death occurred a month afterwards. The mother now submitted to a course of treatment, under which she recovered. Her fifth child is now (October, 1850) perfectly healthy.

The remainder of this history will be found in Chapter VI.

Case XI.

TRANSMITTED SYPHILIS IN TWO INFANTS, THE MOTHER HAVING EXPERIENCED A PRIMARY AFFECTION, OF WHICH SHE WAS SAID TO HAVE BEEN CURED.

M. H., a healthy-looking woman of middle stature, light complexion, forty years of age, was delivered, May, 1845, of a male child, at the full term of gestation. When three weeks old, the infant was brought to me in consequence of sore mouth and eruptions on the skin, which were said to have made their appearance three days previously. The eruptions consisted principally of papular groups of various dimensions, some of which had become scaly, occupying the nates, thighs, and ankles—more thinly scattered on the face and neck. The earlier ones were blotches of roseola, interspersed here and there with petechial specks of a purplish tint, circular in shape, and slightly elevated. Those which had existed some days were covered with a thin, broken scurf, the outer border of which was a minute fringe, terminating upon a red boundary, which faded away in the pale surface. The mouth and throat were sore and swollen, and the mother's nipples were excoriated. The symptoms readily subsided under the use of mercurial inunction practised upon the abdomen, the remedy being applied upon a piece of flannel retained on the part by means of a bandage. The child was weaned early, in consequence of the supply of milk spontaneously failing. The mother was ordered iodide of potassium; but this, as the health soon appeared tolerably good, was, after a short time, discontinued.

On the 9th of June, 1847, when forty-two years of age, her twelfth pregnancy terminated in the birth of a healthy-looking, full-grown fœtus. When twenty-five days old, the child was fretful and feverish, and appeared to be wasting away; its features had the decayed, senile expression usually noticed in transmitted syphilis; the nasal membrane and throat were tumid and irritable, the mouth and lips sore, and the eyes tender. Three days later, the nates, face, and elsewhere, exhibited a plentiful crop of roseolous blotches. Mercurial inunction was again had recourse to, under which the symptoms yielded, as in the former instance, and the patient was in due time restored to health. The mother, being now convinced that her system was not in a healthy state, willingly submitted to a course of treatment, by which her health was perfectly restored. The following is the early history of her case, which coincided with her husband's statement:—

In the summer of 1844, about four months before she became pregnant of her eleventh child, the first of the two above mentioned, she contracted syphilis in the primary form from her husband. She had two excavated ulcers, with much surrounding hardness and inflammation on the labia majora, one opposing the other, with irritable bladder, and pain in voiding the urine. Pills were prescribed, which she was told were of mercury, but of which she took only three: the mouth was not affected by them. She also took other medicines, and used a dark-coloured lotion to the ulcers. Her recovery was speedy, and apparently complete. No secondary eruptions or other form of ailment supervened, with the exception of a purulent discharge, which had continued ever since. She was naturally a remarkably healthy

woman, and had never before, to her knowledge, suffered from leucorrhœa.

On examining the uterus, the whole of its lower section was found enlarged, tense, shining, having an erythematous aspect: upon it were several small, rounded, flat, mucous tubercles, covered with a soft grey crust, easily removed, and the orifice was surrounded by a ring of vivid redness, extending within to a point beyond the reach of vision. Being a person of tense fibre, subject to constipated bowels, a few purgative doses of calomel and colocynth were administered, and afterwards pills containing small doses of oxymuriate of mercury with guaiacum, which were taken five or six weeks, when she discontinued them on her own responsibility. The uterus was occasionally treated with nitrate of silver. She has not since had a family, and now (September, 1850) appears, after the lapse of three years, quite well, being entirely free from leucorrhœa, and from every other ailment.

Case XII.

TRANSMISSION OF SYPHILIS IN THE SECONDARY FORM THROUGH THE MEDIUM OF THE BREAST, AFTERWARDS HEREDITARILY.

J. R., thirty-seven years of age, of the sanguine-lymphatic temperament, originally of a sound constitution and healthy parentage, bore her first six children alive at the full term of utero-gestation. Six weeks after her sixth confinement she contracted syphilis from her husband. There were several primary sores on the external genitals, and afterwards scaly eruptions on the face, chest, and limbs, ulcerated sore throat, and purulent blennor-

rhagia vaginalis. The infant, whom she suckled, became also affected with secondary syphilis, in form of groups of scaly papulæ, which covered, in varying degrees, the whole cutaneous surface; it had also huskiness of voice, ulceration of the lips, and sore throat.

It was stated that both mother and child were under treatment, at a hospital especially adapted for these complaints, upwards of six months, at the end of which time they were pronounced cured. The infant at this period was much emaciated, being still troubled with excoriation of the mouth and fauces, huskiness of voice, cough, and fissured anus: it died cachectic at the age of two years. The mother also had become greatly reduced in strength, and of sickly complexion: she was free from external sores and eruptions at the time of her dismissal from the institution alluded to; but still had a copious yellow-coloured discharge, which she believed prevented her perfect recovery. She was never previously troubled with leucorrhœa, and was of opinion that this discharge, to use her own expressive terms, was occasioned by the venereal complaint having "got into her inside." She menstruated (after weaning the baby) scantily, and with suffering.

During her next (her seventh) pregnancy, the blennorrhagia was abundant, and exhibited the same greenish-yellow appearance as previously. She was delivered a fortnight before the completion of the full gestative period, of a still-born, half-putrid fœtus. Her recovery was long and tedious, confining her to her room seventeen weeks. The eighth and ninth pregnancies ended abortively, each at four months and a half. The tenth pregnancy arrived at its full term; the child, who was greatly emaciated, was mottled at birth with copper-

coloured blotches, and died on the third day. The eleventh pregnancy ended in a premature birth at seven months, the fœtus being still-born and much decayed.

When seven months advanced in her twelfth pregnancy, she was admitted (December, 1845) a patient of St. Mary's Hospital. She was perfectly free in external appearance from syphilitic disease: the skin, however, was extremely sallow, the body emaciated and feeble, and there was a plentiful yellow-coloured discharge from the vagina. Her condition was that of one in an advanced state of cachexy. She believed the fœtus was dead, as its movements had ceased, and she had experienced symptoms of approaching labour.

I ascertained, however, by stethoscopic inquiry, that the child was still living. The cervix uteri was abnormally large, indurated, and aphthous. Around the orifice was an angry-looking suppurating surface, extending within the cervix to a distance beyond the reach of observation, and the labia were deeply fissured.

The treatment consisted in the immediate and free application to the diseased surfaces of the solid nitrate of silver, which was afterwards repeated at suitable intervals; in the exhibition of two grains of opium combined with the same quantity of *hydr.-submur.* at bed-time. This remedy was twice repeated on successive evenings; and the compound decoction of sarsaparilla with iodide of potassium given daily. After the fourth day a combination of hyoscyamus and hydr. cum cretâ was substituted as an evening anodyne and alterative. The threatenings of labour subsided, the movements of the child were again felt, and soon became vigorous, and the vaginal discharge diminished in quantity. In the course of three or four weeks her condition was remarkably im-

proved. She was delivered of a full-grown healthy-looking child on the 11th of February, 1846, and recovered favourably. During the treatment the system had never been manifestly brought under the influence of mercury, nor was the vaginal discharge ever absent, although greatly diminished.

I believed, nevertheless, that the system had been perfectly freed by the treatment from the syphilitic taint; but in this I was deceived. On the sixth day the child appeared pale and emaciated. On the twelfth day the emaciation was still more manifest, and a dark-red spot, three to four lines in diameter, consisting of a group of minute papulæ, and of coppery tint, appeared on its left cheek: on the day following this had increased to twice the size, and a similar blotch was seen on the right side. On the seventeenth day the whole surface of the body was covered by a scaly eruption of similar character, and the voice was husky. Seven days later there was complete loss of voice, with stomatitis; the lips were swollen, one corner of the mouth was occupied by an ulcerated tubercle, and the anus was fissured. So entirely a mass of disease did the little creature appear to be at this stage, that when taken to my esteemed friend, the clergyman of the district, for the purpose of having the rite of baptism administered, he, understanding the nature of the disease, did not dare to touch the child without the intervention of an additional provision of drapery.

The treatment consisted in mercurial inunction and the exhibition of ioduretted syrup of sarsaparilla. At the age of seven weeks not a spot was to be seen on any part of its body, with the exception of a small granulating ulcer on the inside of one of the nates; this also became

healed in a short time by the application of the nitric oxyd ointment. At three months old the child was comparatively plump; it had recovered its voice perfectly, and appeared healthy.

The restoration of the child's health was gratifying, not on its own account merely; nor were the effects witnessed entirely attributable to the remedies employed in its own case alone. It afforded also a pleasing index to the progressive improvement of the mother's condition, the medicines which she had taken having imparted their sanative influence to her nursling through the same channel by which, on a former occasion, had been conveyed the principle of destruction. In her case a plan of treatment was adopted similar to that before mentioned: the system was brought under the influence of mercury, the effect of which was maintained for a considerable period by means of the oxymuriate; instead of sarsaparilla, the decoctum hydrolapathi was successfully administered, and the uterus was treated with the strong solution of nitrate of silver.

Thus far the case was known at the time of my former publication, in which it was inserted. I have since occasionally visited the family The child had repeated relapses of sore throat and diarrhœa, of which latter complaint it died at the age of eighteen months. The mother has since continued in health. She has had a thirteenth child, who is now (November, 1850) nine months old and perfectly healthy, not having exhibited any symptom of the venereal taint.

Case XIII.

SECONDARY SYPHILIS OF TWELVE YEARS' DURATION; HEREDITARY TRANSMISSION; DISEASE OF THE UTERUS.

K. M. was married, at the age of eighteen years and ten months, in 1834, and about six or seven weeks afterwards found herself affected with a syphilitic ulcer, contracted from her husband, who had an unhealed sore at the time of their union; but whether this was of primary or secondary nature is undetermined—probably secondary, as will presently appear. The labia externa were greatly swollen and inflamed, upon the right of which was situated a deep ulcer, surrounded by extensive induration; the spot formerly occupied by this is now indicated by a silvery cicatrix a third of an inch broad, with a stellated border of dark-brown tint. There was at the same time an abundant blennorrhagia vaginalis of a yellow colour, ardor urinæ, and irritable bladder. She took medicine procured for her by her husband, but was not seen by a medical man; nor does it appear that any effect was produced which would lead to the supposition that mercury was administered. A few months later, the sore being healed, and during her first pregnancy, she experienced an attack of cutaneous eruptions, which were very numerous on the face, chest, and arms, more thinly scattered on other parts of the body, with sore throat, for which symptoms she again took medicine with temporary benefit. A similar train of phenomena followed her first, as well as each succeeding delivery, to greater or less extent; but they always disappeared by the aid of remedies.

The husband, who, at my request, presented himself

for examination, admitted having had syphilis as above noticed, confirming his wife's statement throughout. The disease was contracted about six months before marriage, appearing in form of indurated chancre and inguinal abscess, both which were long in healing, the induration remaining after the chancrous ulcer had become covered with cuticle, and it several times broke out again in the same spot at distant periods: the induration was in this excoriated condition at the time of marriage. On the occasion of my interview with him, twelve years and a half after the invasion of the primary affection—the only one he ever experienced,—he was manifestly labouring under the influence of the infection. He was frequently tormented, for instance, especially during the night, with *rheumatic pains* of the limbs and head; the skin was peculiarly sallow, contrasting strongly with a number of dark-red tubercles situated on the back and shoulders, and occasionally coming out on the face. The throat, always tender, now and then became very sore; the fauces were thickened, and presented an erysipelatous aspect, mottled with minute points differing from the rest of the surface in colour. The sub-occipital glands were enlarged; he was often troubled with red blotches, sometimes a single large patch of erythema, on the face; and there was chronic thickening of the sternal periosteum, which from time to time was the seat of erythema.

The wife's first pregnancy ended at six months, in the birth of a still-born, half-putrid fœtus; the second, fifth, sixth, eighth, tenth, and eleventh, were abortions at about three months; the twelfth terminated at eight months, the child being still-born and decayed; the third, fourth, seventh, and ninth were born at the full term,

but were meagrely grown; each of these became affected with syphilitic symptoms a few days after birth, in form of scaly blotches, occupying the skin in most parts of the body, and having sore mouth, inflamed eyes, obstructed respiration, and wasting, under which they died, one at the age of four weeks, one at six weeks, one at eleven weeks, and one aged fifteen weeks.

The patient first presented herself to my notice on the 13th of November, 1846, when six months advanced in her thirteenth pregnancy. She was exceedingly anxious to preserve her offspring alive on this occasion, but at the same time expressing fears, founded upon certain indications like those experienced in former instances, that the child had already perished. She was greatly emaciated, sallow, languid, and irritable; there was discharge of a yellow colour, sometimes sanguinolent, with swelling and excoriation of the external parts. Stethoscopic inquiry discovered the fœtus to be still living, although its movements were exceedingly feeble, and the circulation subdued and languid.

The anterior labium of the uterus was unusually large and tense, the cervix being deeply red and mottled; the posterior labium was smaller in size; the boundaries of the orifice were angry, granular, and suppurating, this morbid appearance being continued within the cervix; and there were several flattened elevations covered with grey crusts, easily removed by means of lint.

Delivery took place at the full term, February 6, 1847, the child being well developed, and apparently healthy. On the third day it was taking its natural aliment, and thriving; on the eighth day the skin was smooth and free from blemish, but the patient was fretful and uneasy; on the eleventh and twelfth days, a few blotches of clus-

tered papulæ were seen about the mouth, forehead, and on the breech and thighs, and the child was feverish and irritable. When fifteen days old, the eruption had extended over a great part of the surface, the mouth and throat were sore, the eyes tender, and the secretions vitiated. During the following two months the symptoms varied in severity, appearing now and then to be mitigated by the remedies employed, and as often relapsing; and an obstinate diarrhœa supervening, the patient died, greatly emaciated, at the age of eleven weeks.

The mother, as well as her husband, were in the mean while undergoing a course of treatment consisting of mercurial alteratives with ioduretted sarsaparilla, which was continued about ten weeks, when both appeared, at the end of May, the same year, perfectly cured.

One of the most perplexing circumstances connected with the treatment of diseases of this class, is the difficulty of knowing when enough has been done in this way, and at what period remedial interference may be safely discontinued. In the present instance, although the complaint seemed to have been perfectly cured, both individuals having expressed themselves better in health than they had been for several years past, the seeds of the disease had evidently been too deeply rooted to be so easily eradicated. For, about two months after the cure had been pronounced complete, and during the most favourable season of the year, a relapse took place in both individuals, without any fresh infection having been contracted. In July, the man had an attack of sore throat of decidedly syphilitic character, with vascular injection of the sclerotic tunic and *deep-seated pain* of the eyeballs. These were succeeded by articular rheumatism and tormenting nocturnal pains of the head and limbs, which

lasted several weeks. The wife experienced at the same time phlegmonous enlargement and excoriation of the vulva, ardor urinæ, purulent leucorrhœa, and characteristic lesion of the uterus, attended with the usual sympathetic disturbances. Both were again subjected to a long course of mercurial treatment. It was judged desirable on this occasion to bring the system decidedly under the influence of the mineral remedy, and to keep the action manifestly awake for several months; indeed, it was not until the end of the year that the medicines could be safely discontinued. The result has proved that the means adopted accomplished the desired effect. The woman was safely delivered, September, 1848, the fourteenth time, of a full-grown, healthy fœtus, who is now (August, 1850) nearly two years old, and a remarkably plump and vigorous boy, having entirely escaped every symptom of the disease which had proved fatal to his predecessors.

Both husband and wife have since continued in excellent health. The most remarkable change which they have experienced, is visible in their complexions and tone of mind: from being sallow, haggard, anxious, and fretful, they have become clear, robust, cheerful, and contented. The wife is again enciente for the fifteenth time.

Nothing can illustrate more convincingly than does the preceding history, the necessity of patience and perseverance in the treatment of this most subtle and disastrous complaint. External appearances afford but an imperfect signal for our guidance. The remedies should be continued, not only until all outward indications of disease have disappeared, but, as a general rule, for two or three months longer. In addition, four other points

connected with this case seem to substantiate what has been already advanced:—

1st. The communication of the syphilitic poison in its secondary form from the husband to the wife.

2nd. Its destructive influence upon her offspring in thirteen instances.

3rd. Its active reappearance after, by a prolonged treatment, its eradication seemed to have been accomplished.

4th. The manifestation of its presence in the uterine system.

Case XIV.

SECONDARY SYPHILIS SIXTEEN YEARS AFTER THE PRIMARY AFFECTION: HEREDITARY TRANSMISSION.

A. B. was married, at the age of seventeen, in the spring of 1830, having previously enjoyed excellent health. Immediately after marriage she contracted syphilis from her husband: the affection appeared in form of swelling and inflammation of the vulva, upon which were situated two or three deep ulcers with raised edges and great hardness, which remained a long time; there was also a free discharge of purulent matter from the vagina, and swellings in both groins. As these were getting well, she had an attack of scaly eruptions on the face, forehead, and arms, and more slightly on other parts of the skin, with ulcerated throat. She took medicine for some weeks, but was not salivated; the sores were treated with caustic and lotions, and the cure was considered to be complete in about a month, although a degree of hardness and swelling remained in the situation of the ulcers, and the puriform discharge did not cease.

After this date she was for a length of time in delicate health, complaining of languor, aching of the loins and hypogastrium, irritability of the bladder, and precarious appetite, with the discharge aforesaid; which symptoms continued, more or less, for the following fifteen or sixteen years. The menstrual functions were all this time performed with considerable suffering, the discharge being abnormally profuse, sometimes clotted, grumous, and offensive. She was never pregnant by her first husband, with whom she lived on comfortable terms until his death, which happened at the end of twelve years, when she had attained the age of twenty-nine. Twelve months afterwards, being in a somewhat better state of health than heretofore, she was the second time married: this circumstance necessitated her removal to a remote, and, as it would appear, a healthier district, as the change was marked by improvement in her physical state, which was particularly manifest in an improved tone of the digestive organs, amelioration of the menstrual suffering, and diminution of the leucorrhœal discharge. Shortly after the age of thirty-two, she became for the first time pregnant, and requested my assistance on being threatened with abortion a few weeks after the period of quickening. It was on the occasion of my first and subsequent visits that the above particulars were recounted to me: there can be no reasonable doubt as to their correctness, as the woman is a person of probity, wanting in the motives for making a false representation.

The leucorrhœal discharge had never been entirely absent since its first appearance at seventeen years of age; it had undergone some abatement after her second marriage, but was again augmented during pregnancy, and for a few days previous to my attendance it had

several times been mixed with blood: this circumstance, together with the occurrence of intermittent forcing pains, had excited fears for the safety of the fœtus in utero.

The cervix uteri was unusually large and firm; the boundary of the orifice was covered with granulations which appeared to extend to the interior of the organ; the outer margin of this ulcer was a defined wavy elevation, external to which the surface of the cervix was of a dark-red colour, and mottled; a deep fissure occupied the right commissure, from which, and the adjoining granulations, blood was exuding. On communicating my suspicions respecting the venereal nature of the complaint under which she laboured, her history as above related was given in a straightforward manner; but she was unwilling to believe that any trace of the affection remained in her constitution at this remote period, so that no treatment was adopted with a view to that particular ailment. On inquiry, her present husband could not be suspected of having any such taint about him, the result of his own delinquency.

Her delivery took place at the full term of utero-gestation on the 11th of July, 1846, the child being well grown and apparently healthy.

Four weeks after birth the child had become wan and emaciated; its face, breast, breech, and limbs were covered with scaly blotches of a dark-red colour, circular in form, and of various dimensions. The throat was swollen, the mouth and lips sore, the voice husky, and the breathing noisy. The mother, who referred regrettingly to her unbelief respecting my statement on a former occasion, was now forcibly convinced as to the specific nature both of her own and her infant's complaint. The uterus bore still the same evidences of disease as before described.

Both she and the child were subjected to a course of mercurial treatment, under which the complaint gradually yielded, and the cure appeared to be complete at the end of eleven or twelve weeks, when I lost sight of them.

Thus far the preceding history was given in my former publication. The result shows how little reliance ought to be placed on our boasted achievements in medicine, in this class of ailments at least. It appears that in the course of a week after their withdrawal from my notice, the child had a relapse of a most severe description, and from anxiety for its preservation, and the belief that I had exhausted my skill, another practitioner was applied to, whose treatment was unavailing, and it died before the age of four months.

The mother has not since been pregnant, but appears now (September, 1850) in the enjoyment of perfect health. The husband could not be further interrogated, being afflicted with mental disorder, for which he is confined in an asylum.

Case XV.

CONSTITUTIONAL SYPHILIS OF SIX YEARS' DURATION, THE RESULT OF AN IMPERFECTLY CURED PRIMARY AFFECTION; CONTAMINATION OF THE INFANT BY NURSING; HEREDITARY TRANSMISSION.

M. J., a woman of light complexion and powerful physical formation, bore her first child alive at the full term of gestation at the age of twenty-one and a half, in September, 1837; her second equally favourably, a year and nine months afterwards: the first of these children is still alive and healthy. She had hitherto enjoyed good health, and had never been troubled with leucorrhœa.

A month after the second confinement she contracted a primary syphilitic affection from her husband; the disease appeared in form of two excavated ulcers on the inner aspect of the labia majora, one on each side, near the urethra. There was a great deal of surrounding inflammation and hardness, ardor urinæ, and free discharge of purulent character. She had also in the right groin a large glandular swelling, which suppurated. She was nine months under a course of non-mercurial treatment, during which period a crop of secondary eruptions appeared on the face, chest, and extremities, with ulcerated throat, husky voice, and the purulent discharge was unabated. She was never salivated. The infant, whom she suckled, was covered with scaly eruptions seven weeks after the infection was first implanted upon her, and died emaciated, with venereal sore throat, loss of voice, and ulcerated patches about the breech, at the age of eight months and a half.

Her third child was born alive at the end of the seventh month. On the third day syphilitic symptoms appeared, and the patient died on the seventh day with ulcerated throat of a putrid character, its skin covered with eruptions. Her fourth child was born at the full term, and was covered with syphilitic eruptions on the ninth day; at the end of three weeks the anus was deeply fissured, the mouth and throat inflamed and excoriated, and the voice husky. The complaint was mitigated by means of hydr. cum cretâ and mercurial inunction; but an occasional attack of eruptions came out from time to time during the first two years of its life; these were treated in like manner, and the child was in the enjoyment of health at the age of four years. The patient did not become again pregnant for three years and a half, during the whole of which

period her health was very infirm: the menstrual function was performed with great suffering, the discharge being unusually profuse, continuing from seven to nine days each time; and the leucorrhœal complaint, attended with lumbar and hypogastric pain, occupied the whole of each menstrual interval, and had never ceased to be present in this manner since the first invasion of the disease. She had hitherto been under the care of a skilful practitioner who is my intimate friend.

She presented herself to my notice on the 30th of March, 1846, when five months advanced in her fifth pregnancy, labouring under violent phlegmonous inflammation of the right labium majus, accompanied with certain other symptoms urgently threatening abortion. The fœtal pulsation and placental souffle were both distinctly audible. Ten days afterwards, the antiphlogistic treatment adopted having reduced the inflammation, and effectually relieved the other symptoms, the cervix uteri, on specular examination, was found greatly enlarged, of a dark-red, erysipelatous aspect, and completely covered by aphthous patches, which, the crusts being removed by means of lint, appeared as so many flat tubercles slightly raised above the surrounding surface, being of a somewhat brighter hue, and minutely granular. The boundary of the orifice and the internal cervix exhibited a suppurating surface, from which exuded a quantity of purulent secretion, slightly mixed with blood.

The cure was accomplished by means of mercurial remedies in form of Plummer's pill given internally, and mercurial inunction practised upon the thighs and abdomen. A decided effect was early evident upon the mouth, and this was perceptibly kept up for four months; she also took an occasional dose of opium at bed-time, and

for the last month of pregnancy, the ioduretted sarsaparilla. She appeared perfectly well, both as to the visible disorder of the uterus and the discharge, before delivery, which took place at the full term of gestation, on the 15th of July, 1846, fifteen weeks after the commencement of the treatment; her puerperal recovery was speedy and favourable. The infant at the age of six months was plump and healthy, and had not so far manifested a trace of the venereal taint. It was nursed by its own mother.

The preceding history was given in my former publication. It serves additionally to illustrate the great tendency that this form of disease has to remain long in the system without other outward manifestation of its presence besides the characteristic discharge from the vagina, the cause of which may almost invariably be found; and the insufficiency of the non-mercurial treatment for its perfect eradication. It affords, moreover, another proof of the certainty and facility with which the venereal poison may be transmitted through the medium of the breast.

Case XVI.

LUES VENEREA CONTRACTED FROM ONE ENTIRELY FREE FROM EXTERNAL DISEASE; ITS EFFECTS ON THE REPRODUCTIVE SYSTEM.

J. McD., twenty-four years of age, became the second time pregnant in January, 1848. Her first child had died of measles a short time previously to this date, at the age of twelve months.

Her husband, who had been absent from her upwards of six months, having been employed as practical me-

chanic at Birmingham, returned home at the beginning of 1848. During his absence he contracted a venereal affection, from which he suffered severely, having an extensive abscess in the right groin, and, afterwards, eruptions which covered the whole body, and ulcerated throat; then followed a violent attack of iritis, which confined him to his room upwards of a month, during the greater part of which period he lost the power of sight. He was considered cured before he returned to his family, and certainly had not at that time any external indication of disease about him.

Soon after her husband's return, the wife, previously healthy, began to experience a sense of heat and tenderness of the vagina, with discharge; then a smarting pain attended the urinary efforts, which soon became frequent and distressing. She was constantly feverish, and troubled with aching of the limbs and back, and aborted when two months advanced in pregnancy.

At the time of her abortion, the vulva was greatly swollen and inflamed, and a deep chancrous ulcer, half an inch in diameter, was situated upon the inner surface of each labium pudendi, one opposite the other; the inguinal glands were swollen and painful, but did not suppurate. These symptoms increased to an alarming degree of severity; sore throat came on, followed by a crop of eruptions, which were at first flat and broad, and of a dark-red colour. She was under treatment the following twelve months, namely, until the end of March, 1849. During the first part of this period, antiphlogistic measures were adopted, by which the urgent symptoms were signally benefited. But the swelling and irritation of the vulva did not improve beyond a certain point, nor was the discharge diminished in quantity, or altered in

appearance. The throat also remained tender, and about the middle of the period named, that is, in September of the same year, a plentiful crop of eruptions broke out over the whole body, and remained, spite of treatment, more than three months. This eruption at the onset was in many respects like distinct small-pox; the vesicles being most numerous on the back, chest, shoulders, around the abdomen and pelvis; more thinly scattered on the lower extremities; but scarcely affecting the face and upper extremities.

After having discontinued the treatment, which had been confessedly non-mercurial throughout, she had a most distressing attack of *rheumatism of the head* and limbs; the vaginal tenderness and the discharge, which had never been absent, became at the same time aggravated, and she declares that her sufferings at this period were more intense than they had been at any time previously. She was on this occasion treated by a remedy suggested by a neighbouring friend, and prepared by herself, consisting of decoction of elm bark and iodide of potassium, under which the symptoms soon yielded. Shortly afterwards, however, another crop of eruptions came out, but of a new character. These were tubercular. At first, six or eight tubercles, the size of peas, of a purple colour, appeared on the calf of each leg, and as many on each forearm and wrist. They were not very painful, soon partially subsided, and were succeeded by others precisely similar, on the opposite sides of the same members. Successive crops of these continued to form, first upon one part, then on another, for the space of three months, when they finally ceased, the limbs retaining for several months afterwards deep-coloured stains, showing, on the occasion of her first visit to me, the situation

of each tubercle sufficiently distinctly to be counted. This milder form of disease occurred during pregnancy.

Her third pregnancy terminated at the end of the sixth month, December 4, 1849, the fœtus being still-born and decayed. During the puerperal period she experienced another attack of secondary symptoms, in form of sore throat, flat tubercular eruptions about the vulva, and violent *rheumatic pains*, continuing several weeks. The leucorrhœal discharge continued as before.

She was the fourth time delivered at the end of the seventh month, October 24, 1850, the fœtus being still-born and putrid. On this occasion she was under my more immediate surveillance. She had again sore throat of a well-marked venereal character, ulceration of the commissures of the lips, tumefaction and excoriation of the vulva, and sanio-purulent leucorrhœa of a very offensive kind.

On specular examination a fortnight after delivery, the lower section of the uterus, as much of it as could be brought into view by means of a large-sized instrument, was exceedingly angry, granular, and covered with purulent secretion: the same state existed within the cervix as far as the examination could be practised. For obvious reasons, no local means were at this stage employed: a course of constitutional mercurial treatment was however immediately put into practice, and pursued with diligence.

January 6, 1851, ten weeks after delivery.—The treatment had been uninterruptedly continued since the previous report, the action of the mercurial remedy having been fairly produced on the mouth, and slightly but perceptibly kept up ever since—a period of eight weeks. The Plummer's pill, in doses of three grains, was from

this time ordered to be given every night, and the ioduretted sarsaparilla three times daily. She began to menstruate nine weeks after delivery, the discharge continuing in unusual profusion for twelve days;—the usual term having heretofore been three days. After the cessation of this menorrhagic state, the anterior labium uteri was found to be entire, of moderate size, of a light grey colour, and apparently healthy. The posterior labium was comparatively small, but occupied to some extent by a patch of superficial ulceration of a dark-purple colour, with defined boundaries. No local remedy had been at any time used. The woman's health was much improved, and she expressed herself in a more comfortable condition than she had been for the preceding three years.

March 20, eight weeks from the commencement of the treatment, she appeared free from all morbid symptoms, and was discharged cured. The catamenial function had returned to its healthy state. I regard the profuse evacuation above noticed as representing the sanative crisis, determined, or at least materially influenced, by the remedies made use of, and at which epoch the system experienced that change which ended without further interruption in the restoration of health.

Case XVII.

LUES VENEREA OF SEVERAL YEARS' EXISTENCE, THE RESULT OF SECONDARY INFECTION; HEREDITARY TRANSMISSION; STATE OF THE UTERUS.

M. McJ. was married, at the age of twenty-two, in the spring of 1842, being remarkably stout, energetic, and healthy. Her husband, about her own age, was also

apparently in health. About nine months previously he had suffered from a primary venereal affection, in form of chancre and inguinal abscess, followed by eruptions on the skin and sore throat. He was several months under treatment at a hospital, and was reported cured at the end of three or four months, although he experienced soreness of the throat, and now and then had a few blotches on the skin for a month or two longer, for which he attended occasionally as out-patient; but he was considered perfectly cured at least three months before marriage. He had not been salivated during the treatment, and understood that the cure had been effected without the aid of mercury.

Five or six weeks after marriage, the wife had a number of copper-coloured eruptions on the face and forehead, sore throat, excoriation of the pudendum, and a purulent discharge coming on simultaneously, and being regarded at the time as the result of exposure to cold. In a short time, the skin having become in great measure covered with eruptions of the same kind, and the throat extensively ulcerated, the affection came to be regarded as venereal. She was for four weeks an in-patient of a hospital, whence she was dismissed "cured." She is not aware that she took mercury, either then or at any time. The vaginal affection received no attention; the discharge continuing in great abundance, and exhibiting the same character, after her dismissal from, as before her reception into, the institution referred to.

Her first pregnancy terminated at the end of the eighth month, a year after marriage: the child being still-born and much decayed. She was the second time delivered by the assistance of the same accoucheur at the end of the year 1844: the child, fully developed and apparently

healthy, died at the age of four months and a half, emaciated, covered with eruptions, and having sore mouth and throat, and inflamed eyes. These symptoms first appeared at the age of eight weeks. When in the eighth month of her third pregnancy, she was again admitted a patient of St. Mary's Hospital in July, 1846, being seven and a half months advanced in pregnancy, in very delicate health, and threatened with premature delivery. The child had not been felt to move for several days; I ascertained, however, by stethoscopic inquiry, that it was still living.

On specular examination being made, the lower section of the uterus was found abnormally large; it was morbidly sensitive under pressure, of a dark-red colour and glistening aspect; several aphthous patches were situated on its surface: these, on removal of the soft grey crusts by means of lint, appeared in form of flat tubercles slightly raised, of circular shape, and having defined borders. The boundary of the orifice was denuded and granular, and the same state of parts appeared to be continued within the organ to a point beyond the reach of inspection.

The treatment consisted in the immediate and free application of nitrate of silver to the diseased surfaces, in the exhibition of hydr. subm. combined with a small dose of opium at suitable intervals, and afterwards the ioduretted sarsaparilla. The object was first to procure decided evidence of the mercurial action; this was accomplished in the space of a few days, and kept up during the remainder of pregnancy, and very slightly also for two or three weeks after, when the ioduretted sarsaparilla was substituted. She was delivered on the 27th of August, about six weeks after the first

interview, of a full-grown, healthy-looking child, who, at the age of three months, was still in a favourable condition, having escaped, so far, any symptom of the venereal taint. The uterine affection appeared to have entirely disappeared before delivery, and she seemed to be in perfect health at the period mentioned.

The parties have been kept under notice from time to time since that report. At the teething period, the child became delicate, and had a crop of scaly eruptions on various parts of the body, which, in some measure, subsided under treatment, with the exception of some patches of psoriasis about the head. These gradually became less after the extrusion of the teeth, some spots on the head remaining, however, although in an altered form. In the third year, the cutaneous affection consisted in a number of impetiginous pustules occupying the forehead, along the margin of the hairy scalp, and extending across from one temple to the other, in which form, though less severe, they still existed at the age of four years and a half. I last visited the family on the 31st of December, 1850, and found the same boy suffering from a large strumous abscess at the right side of the neck. His mother informed me that he had had a slight attack of scarlatina a month previously.

Her fourth delivery took place March 31, 1849, in the birth of a female child at the full term of gestation. This child has been delicate from birth. She has almost constantly suffered from coryza, soreness of the mouth, inflamed eyelids, and eruptions. Four months ago, in August last, she had an attack of chicken pox, which ran its course in four days; this was succeeded by other crops of eruptions of similar character, several times repeated, during the following month, and then by a

quantity of eruptions of broader surface, fewer in number, less distinctly elevated, and ending in the formation of a brown ecthymatous scab. Numbers of these have continued to reappear in succession from the first invasion until now (December 31, 1850), that is to say, for upwards of four months. The period which the present form of eruption occupies in progressing through its various stages, is three to four weeks—from the first appearance of the blotch to the falling of the scab. Then succeeds a dark-red eschar of corresponding size and shape, continuing for an undetermined period. Some of these, apparently three months old, are still distinct cicatrices.

The father of these children, a man of originally good constitution, and of healthy parents, has been confined since June last in the County Lunatic Asylum for aberration of intellect. What this may be owing to may be difficult to determine. He was a profane man, and intemperate in his habits, but never suffered from delirium tremens. I have good reasons for believing that he is not, even now, free from the syphilitic poison with which he was infected before marriage.

Case XVIII.

CONGENITAL SYPHILIS OF VESICULAR CHARACTER FATAL ON THE TENTH DAY, SUCCEEDING A GONORRHŒAL AFFECTION IN THE PARENTS.

On the 15th of August, 1850, I saw a female infant, eight days old, with an eruption of herpetic form occupying, more or less completely, every part of the cutaneous surface, with the exception of the face. According

to the accoucheur's account, the blotches existed at birth, but appeared then only as dark-red spots, like those commonly denominated "mother's marks," the skin being thickly occupied by them. In two or three days their colour changed to a greyish tint, the dark-red colour remaining only at their circumferences. At this period it was observed that they contained a small quantity of clear serum, which in some places was seen to ooze out on the cuticle being broken during the process of sponging. Some small patches of skin around the trunk of the body, which were unoccupied by them, had a waxy hue, and the face, less infected than the rest of the surface, was extremely pale and œdematous.

On the occasion of my visit, the child, who was said to have been moderately plump at birth, was shrivelled and flaccid; it was constantly whining, had a husky voice, and noisy respiration. The mucous membrane of the mouth and nose was thickened and excoriated, and an attack of purulent ophthalmia was setting in. The eruption was plentiful over the entire body and limbs. The blotches were irregularly circular in shape, very slightly raised above the adjacent pale skin, perfectly flat, and in size varying from the eighth to half an inch in diameter. They were in different stages of maturation and decay, the more recent ones being of a dirty-grey colour, bounded by a darkened border, and containing a sero-purulent fluid; in the others the contents seemed to have been absorbed, the superjacent cuticle having shrivelled into thin scales, which terminated in a very minutely-fringed margin of pearly whiteness. The labia pudendi were excoriated, and the anus was puckered with fissures, and very irritable. The patient died the day but one after, aged ten days. A professional artist,

present for the purpose, made a coloured representation of the diseased surface.

On being questioned, the mother denied having at any time, to her knowledge, laboured under a venereal affection. She remembered having experienced, at about the middle of pregnancy, inconvenience in voiding the urine, with soreness of the vulva, and a yellow discharge, for the relief of which symptoms she took medicine procured for her by her husband, and got well. She had previously borne four children, none of whom had suffered in like manner.

The husband, at my request, waited upon me the day following that of my visit. On acquainting him with my suspicions respecting the nature of his child's complaint, he unhesitatingly admitted that he had contracted a gonorrhœa four or five months previously (in March), but was not aware that anything ailed him until several days afterwards, having in the mean time subjected his wife to the risk of contamination. He was cured by taking a mixture of copaiba, which he prevailed upon his wife to take also, but without acquainting her with the real nature of the symptoms for which it was given.

Case XIX.

SECONDARY SYMPTOMS SUPERVENING UPON GONORRHŒA APPARENTLY CURED; HEREDITARY TRANSMISSION; GONORRHŒAL ARTHRITIS.

Mr. ——, aged twenty-seven, member of a highly respectable family, contracted gonorrhœa in April, 1849, for which he was under the care of a skilful practitioner, and recovered favourably in the course of a month. On resuming his usual diet, however, which was sufficiently

stimulating, a gleety discharge reappeared and continued unabated for some time, rendering dietary restriction again necessary for a period. A second relapse of the same kind took place during the summer, not the result of a fresh inoculation, but of boisterous exercise and free living during a pleasure excursion with a party of friends. By means of abstinence and a little medicine he again got quite well, and remained so for at least three months before his marriage, which took place in November of the same year, seven months after the primary attack. He never had chancre or bubo, nor any indication of an affection of a secondary nature.

In the third month after marriage, a gleety discharge appeared, which, as it occasioned no pain or other material inconvenience (he had not incurred the risk of contracting a primary affection), was left untreated, in the hope that it would soon subside. However, the discharge gradually increased in quantity, and at the end of three weeks was thick and purulent, and attended with irritation, requiring a course of abstinence and medicinal treatment for its removal.

About the same time (February, 1850), his wife, a fine, vigorous-looking person, twenty-seven years of age, of a healthy family, consulted me, complaining of irritation of the vulva, a frequent desire to void the urine, and a plentiful vaginal discharge of a yellow colour, a symptom she had not at any time previously experienced. There was great languor, feverishness, aching of the limbs, nausea, and general malaise. Being at this period unacquainted with the history of her husband's indisposition, these disturbances were regarded by me as the result of early pregnancy merely, and prescribed for accordingly.

May 27, fourteen weeks after the previous interview,

she appeared to be in the fourth month of pregnancy, the periodical changes having ceased for about that length of time. She still had a plentiful purulent leucorrhœa, with lumbar and hypogastric pain, languor, and feverishness. She felt unwilling to permit a specular examination, so that the procedure was not urged.

On the 25th of July, twenty-three weeks after the first interview, the fœtal movements had been distinctly felt for three or four weeks, and were attended with abdominal tenderness of peculiar character, producing, when at all vigorous, a degree of nausea and faintness. There was still the same kind of leucorrhœal discharge, with external soreness, and vesical irritability.

Delivery took place two or three weeks before the completion of the natural term, on the 28th of October; the labour being speedy, but attended with excruciating suffering. The infant, a male, was rather puny, but apparently in health.

On the sixth day, a raised blotch, the third of an inch in diameter, appeared on the side of the child's nose; on the seventh day a similar blotch came out on the opposite side, and on the following day these two had coalesced, forming one large flat tubercle, every way similar to the mucous tubercle occasionally seen about the vulva of the adult female, but not excoriated; it was of an oval shape, somewhat more than an inch long, extending across the middle of the nose towards the cheeks, having a defined border, glistening surface, and unequivocally of a bright copper tint, which did not disappear under pressure. The infant at this period was fretful, restless, and wasted. On the ninth day both eyes were highly inflamed, the eyelids being distended with a large collection of thick pus. The eruption on the nose began to fade as the

ophthalmia became confirmed, and on the fourteenth day the blotch had entirely disappeared, without the aid of treatment.

By active remedial measures, the ophthalmic affection was shortly alleviated; but so soon as the inflammation began to subside, a balanitis came on, followed by an angry-looking areola of papular erythema around the anus: these alternated in severity with the ophthalmic affection during the remainder of life. At the age of three weeks, a few dark-red spots appeared on the breech. The features became wrinkled, and the skin dry, shrivelled, and of a dirty hue, like parchment. The child died, extremely emaciated, at the age of thirty-seven days.

The mother progressed favourably after delivery until the fourteenth day, when a most distressing attack of articular synovial inflammation came on, which kept her prostrate, spite of all treatment, for several months. It was ushered in by violent shivering and the usual train of disturbances premonitory of inflammation. The disease was confined to three joints: the wrist and ankle on the left side, and the right knee. The joints were slightly swollen, and so exquisitely tender that the gentlest pressure of a moist sponge could scarcely be borne. In the ankle it appeared comparatively mild and partial, being confined to the front of the joint and instep, and it was from this limb that it first disappeared. But in the wrist and knee the tumefaction extended around the joints, and although more sensitive in some one spot than another, yet pressure was unbearable in every part. Now and then a rose-colour blush would suddenly appear where the pain happened to be most intense.

The accession of the arthritic inflammation was attended by sudden cessation of the milk-secretion and the lochia;

the latter, however, had already nearly merged in a sanio-purulent leucorrhœa. On the third or fourth day of the complaint, a brown leucorrhœal discharge, extremely offensive, reappeared, and was marked by trifling alleviation of the acute symptoms, but only for a day or two.

I have seldom seen a case so continuously unimpressionable to medicine as this. Colchicum, antimony, iodide of potassium, local depletion, vesication and fomentation, seemed to produce no impression at all. The only remedy from which relief was obtained was opium in large doses, combined with a small quantity of hydr. submur. and an occasional dose of an active aperient. Antiphlogistics were first freely tried without any beneficial result. A course of mercury was then commenced, and the symptoms began to subside only when the effect of this drug on the mouth became evident: the first symptoms of soreness of the mouth and nauseous taste were coincident with alleviation of the pains, and she expressed herself as having suddenly become aware that "the disease had at length found an outlet." This was upwards of two months after the accession of the symptoms. Her subsequent recovery progressed steadily, but extremely slowly.

On the 25th of January, 1851, ten weeks after the invasion of the arthritic affection, I made a specular examination of the uterus, this being the first time she could suffer herself to be placed in the posture required for such procedure. The discharge, thick and purulent, communicating deep yellow stains to the linen, was abundant in quantity, and extremely sickly and offensive, —not putrid, but like the smell inhaled on opening the lungs of one who has died of tubercular phthisis. The anterior labium was unusually prominent, divided into two tense-looking nodules by a deep fissure; the pos-

terior was smaller but similar in aspect: both, on their opposing sides, presented angry suppurating surfaces of intense redness, which seemed to extend within the organ, which was occupied by a thick muco-purulent secretion.

It was judged prudent to subject the husband to a course of alterative treatment, to which he gladly consented. Before this was commenced a few scaly blotches broke out on his forehead, which disappeared, however, as the operation of the remedy became apparent.

Case XX.

SECONDARY DISEASE SUPERVENING UPON GONORRHŒA; HEREDITARY TRANSMISSION; VAGINITIS.

H. N., a respectable young woman, of full habit of body and light complexion, was married at the age of nineteen and a half, in June, 1848. Soon after marriage she contracted gonorrhœa from her husband. Both were treated in like manner by means of copaiba, and the cure was considered complete in both at the end of a month. The husband certainly appeared well; and the wife's symptoms were considerably relieved: the swelling and inflammation of the vulva, irritation of the bladder, and ardor urinæ, were greatly ameliorated, but not entirely subdued. A few months later she had several sores about the external parts, for which a lotion and other medicines were required; but she continued to be annoyed in the same manner several months longer.

Her first delivery took place at the end of the seventh month, December 24, 1849, eighteen months after marriage: the child was still-born and decayed. Immediately after this event an attack of vaginal inflammation came on, with a plentiful muco-purulent discharge, and a crop

of eruptions, consisting of eighteen or twenty flat tubercles, situated about the pudendum. The throat also was swollen and ulcerated, and a raised flat tuberculous patch occupied the junction of the hard and soft palate. The symptoms subsided after a lengthened course of treatment, part of which consisted in the local use of sulphate of copper.

She was the second time delivered at the end of the eighth month, November 16, 1850, the child, a female, being well grown for the period. On the second day, however, it was noticed that a little blood had escaped from the vagina, and a few hours afterwards its gums or throat began to bleed also. On the third day, when presented to my notice, the hæmorrhage was still going on freely from both these parts, the discharge by the mouth appearing to escape from the throat: the other issued from within the vagina, and probably escaped from the uterus. It was soon suppressed in the mouth by the application of aluminated syrup and the administration of a mild aperient. A few days later, however, the mouth and throat became inflamed and excoriated; the vaginal hæmorrhage had been replaced by a purulent discharge, and these parts were tumid and irritable. The little patient gradually shrivelled and wasted away; the eyes becoming tender and gummy, the nose inflamed and obstructed, the voice husky, and the anus and breech erythematous. It died at the age of ten days.

One month after delivery the mother was examined. It could not be well ascertained whether the uterus was at that period abnormally large, as it was not expected that the organ would already have regained its natural unimpregnated size. The orifice was surrounded by a suppurating surface, the rest of the cervix and upper

half of the vaginal sac were highly inflamed, having the usual granular aspect of mucous membrane in a state of subacute inflammatory disease. She was placed under a mild but prolonged course of mercurial treatment, by which a cure was completely effected. A similar course was prescribed for the husband, but I have now no means of knowing whether this in the latter case has been carried out.

Case XXI.

SECONDARY SYPHILIS CONTRACTED FROM ONE HAVING THE TAINT OF SECONDARY FORM; STERILITY FOR SIX YEARS; HEREDITARY TRANSMISSION TO THEIR CHILDREN.

A. S., twenty-nine years of age, a native of Ireland, married eleven years, was barren six years after marriage. She has since borne three children at the full term of utero-gestation, of whom the first died at the age of fifteen months, having suffered from venereal eruptions, which first made their appearance at the age of four or five weeks. The throat was constantly ulcerated, the mouth and nose inflamed, the voice hoarse, and the breathing obstructed. During the last few weeks of its life an obstinate diarrhœa prevailed, which at length proved fatal. The second died at the age of nine weeks, under a train of symptoms of precisely similar character, the concluding ailment being diarrhœa. The third was born June 22, 1850, and was brought to me at the age of twelve weeks, September 13, 1850. The mother was each time a patient of St. Mary's Hospital.

On the occasion of this interview the child was suffering from incipient ozæna, sore mouth and throat, obstructed breathing, and a thickened angry state of the

eyelids. The skin of the abdomen was occupied, from near the epigastrium to the pubes, and from side to side, by one continuous patch of mottled erythema of a syphilitic character: in colour it resembled a piece of old red flannel. The same state and appearance existed at birth, as testified by the accoucheuse, who brought the patients to me. The colour was a little more deeply pronounced in the middle of the patch than at its boundaries. The inguinal glands were enlarged. The rest of the skin was of a waxy paleness, and œdematous on the face, hands, and ankles. The child died at the age of eight months.

The mother looked very pale and out of health, and spoke with a husky voice. The cartilages of the nose on each side are destroyed at their lower margins to the extent of a quarter of an inch in depth, the destruction extending from their labial attachment to the tip of the nose. The margin of each presents a dark-red, shrivelled cicatrix, contrasting strongly with the rest of the organ and the features, which are peculiarly sallow. On the throat are several well-marked cicatrices traversed by silvery lines, the seat of former ulceration, and the uvula, with a great portion of the soft palate, is totally destroyed.

This woman has never had a primary affection. She states that four or five months after marriage she first became sensible of excoriation of the labia pudendi and puriform leucorrhœa, accompanied with irritable bladder, and irritation and pain in voiding the urine. These symptoms continued to trouble her for many months, having been now and then slightly mitigated by the use of remedies procured for her by her husband. In course of time her mouth became sore and her throat ulcerated;

she was also troubled with distressing *headaches and pains of the limbs,* rigors, and feverishness. At the end of twelve months, having up to this time experienced occasional and temporary alleviation of the symptoms, her throat being extensively diseased, her head, arms, and legs nearly covered with swellings which were intensely painful, and her eyes inflamed, she was admitted an in-patient of the hospital at C——, in Ireland, where she remained seven weeks and a half, when she was dismissed, relieved, but not cured. She continued from time to time to attend as out-patient during the following three or four years, during the whole of which time she was an invalid. Her throat, as well as the other symptoms, were much benefited, however, by means of caustic applications and medicine.

In December, 1845, she was removed to Manchester, when, the symptoms reappearing in an aggravated form, she became, during seven weeks, an in-patient of one of the hospitals, and received much benefit by the treatment. Soon after her dismissal she became pregnant for the first time; but the throat and vaginal disturbance did not entirely disappear, and afterwards relapsed in a severer form.

The lower section of the uterus was abnormally large, the orifice was fissured, and surrounded by a suppurating surface, which had a very angry aspect. The rest of the cervix external to this had a dark, mottled, erysipelatous appearance.

I made another examination of the uterus January 8, 1851, nearly four months after the date of the preceding. Its aspect was materially changed. Its bulk was less, and the complexion of the whole was lighter and less irritable. The circle of the angry suppurating surface had

in great measure healed, except on the summit of each labium. From the most projecting part of the anterior labium, at the margin of the orifice, sprang out a group of warty vegetations, the size and shape of a horsebean, deeply divided into three or four bundles. Opposite to this, on the posterior labium, was a smaller group, the size of a small pea. Both masses were comparatively hard and resisting. The infant had become dropsical, and was suffering from diarrhœa. Both patients were under treatment for two months after the first application; the remedies employed for the mother consisting principally of ioduretted lime-water; for the infant, of hyd. cum cretâ. They improved considerably; but becoming chargeable to the parish, the plan of treatment was changed, or rather, discontinued for a period. Their reappearance at the last-named date was voluntary.

I subjected this woman to the full action of iodide of potassium, to a high degree of iodism; but she seemed no way improved by it. She was then, in February, placed upon a mild mercurial course, with the intention of continuing the remedy a long time. By this means she has progressed satisfactorily, being, at the end of three months, nearly well.

Case XXII.

RECEPTION OF THE SECONDARY SYPHILITIC POISON THROUGH A WOUND ON THE FINGER.

Mrs. M., fifty-eight years of age, by occupation a midwife, mother of a family of healthy children, and herself having been in the enjoyment of excellent health until the invasion of the complaint now to be described,

contracted syphilis while in the exercise of her calling, in the following manner:—

On June 6, 1841, she attended a young woman in her first accouchement. The patient had a number of warts within and about the external orifice of the vagina, and said she had suffered from venereal disease, contracted from her husband, during the early part of pregnancy; but had, for some time past, been considered perfectly well. The child was still-born, and much decayed.

The midwife, at the time of her attendance upon this patient, had a recent scratch on the forefinger of the right hand. A few days afterwards this small wound became irritable, and, instead of healing, continued, spite of soothing applications, to get worse; and at the end of four weeks it was a raised flat tubercle, half an inch in diameter. The absorbents along the limb were red and painful, the axillary glands swollen and tender. Then succeeded a train of constitutional disturbances, described by my intimate friend, her medical attendant, as of unusual severity. She had frequent and violent attacks of rigors, succeeded by high fever and distressing commotion of the nervous system, *intense pain of the head and limbs*, disordered secretions, and particular attention was directed by her to a burning sensation about the vulva. These symptoms were relieved by the appearance of a plentiful crop of eruptions over every part of the body, at first in form of roseolous blotches, but assuming afterwards a crustaceous character. She had periosteal nodes on the forearms and legs, and at a later date a number of rupial ulcers occupied various parts of the body for several months. The situation of these is marked by broad silvery cicatrices surrounded by a stellated circle of brown skin. She also suffered at the same time from

iritis of both eyes, ulcerated throat, excoriated mouth, and a deep ulcer under the tip of the tongue.

The treatment consisted in the administration of mercury, which was continued until the symptoms began to yield, but did not produce ptyalism. The remedies subsequently employed were ioduretted sarsaparilla, continued several months.

This patient has had a relapse of a similar train of symptoms, although in a comparatively mild form, once a year ever since. They have usually commenced in February, and continued about three months. They are generally ushered in by rigors and feverishness, pain of the head and limbs, and disordered functions. Then succeed blotches on the limbs, chest, and face, sore throat, and invariably ulceration under the tip of the tongue.

She has no leucorrhœal affection: the uterus was not examined.

Case XXIII.

SECONDARY SYPHILITIC INFECTION RECEIVED THROUGH THE MEDIUM OF A WOUND ON THE FINGER; HEREDITARY TRANSMISSION.

Mrs. ——, by occupation a midwife, age forty-one, married twenty-one years, has borne eleven children, alive, at the full term of utero-gestation. Her last delivery took place May 4, 1850, the child, a female, being alive and apparently in good health.

Two months before this confinement she assisted at the accouchement of a young woman, the wife of a private soldier, of a still-born child. The soldier's wife had given birth to two still-born children previously, all the three being premature and much decayed. Her husband had

suffered severely from syphilis before marriage, but believed himself to have been perfectly cured, and had not since experienced a fresh infection, nor any noticeable evidence of his former complaint. The wife had never had a primary affection, but firmly believed herself suffering from the venereal taint, and referred the destruction of her offspring to this cause. Her suspicions, probably well founded, arose from the existence of an inflamed and excoriated state of the genital organs, accompanied with a plentiful purulent discharge, irritable bladder, the occasional formation of warts, and certain sympathetic disturbances which she had endured ever since marriage. She was a fine-looking woman, and had been educated for a sphere above that in which her matrimonial union had placed her.

The midwife, at the moment when summoned to her patient, was employed in needlework, and in the hurry of laying aside the articles with which she had been occupied, wounded the second finger of her right hand with her needle. The wound was a mere puncture over the second joint, and was soon forgotten. Three days afterwards, the skin around the joint was red and swollen, and the limb painful, but the symptoms were relieved by poulticing for a few days, and further treatment was deemed unnecessary.

At the end of five weeks, the spot which had been punctured festered, and the surrounding skin was red, swollen, and painful. It was again relieved, however, by means of fomentations and poultices, but did not get well. Three weeks after her confinement, and eleven after her attendance on the soldier's wife, the sore on her finger was a raised, flat tubercle, the size of a sixpenny-piece, covered by a thick brown scab, like that of rupia;

and to the extent of an inch above and below, as well as around the joint, the skin was of a dark-red hue and scurfy. At this period her health was materially deranged; she had loss of appetite, occasional rigors, and *aching of the limbs and head.* The pain of the head soon became so intense as to render her almost delirious. Her medical attendant, on viewing the finger, although unaware of the cause, pronounced the complaint venereal; after a few days' treatment a number of swellings broke out on the head, and the pain of this part was alleviated. Each of these tumefactions measured half an inch to an inch in diameter, hard, tender, of a reddish colour, shortly assuming a deeper tint; then the skin covering them exfoliated, a serous moisture exuding, and concreting into thin scales. These were followed by numerous other swellings of like character on the arms, legs, and nates, with soreness of the mouth and throat.

I saw her the first time on the 8th of September, four months after delivery. She was confined to bed by reason of the number of large rupial sores on the legs and thighs, of which there must have been from sixteen to twenty on each limb, requiring daily dressing with ointment and bandages. The largest were situated on the inner and outer sides of both feet, and measured one inch and a half in diameter. One much larger than this measurement was situated behind and above the left heel, and laid bare the tendo achillis. A number of the eruptions had coalesced on the right leg, forming a serpiginous group several inches in length. The upper extremities were in a state very similar to the lower. The original sore on the second finger of the right hand was a large gummy ulcer half surrounding the limb. The nose was occupied on both sides by a continuous patch, which had

originally consisted of several. The rest of the face and other parts of the body were blotched in a similar manner. The gums were soft, and a broad mucous tubercle occupied the under surface of the tip of the tongue.

She had a slight leucorrhœal discharge; but no evidence of disease was then visible either on the uterus or vagina, internally or externally, with the exception of a soft tubercle on the left labium pudendi.

The infant was suckled by its mother fourteen weeks, when a neighbour, who had an infant eleven months old, still at the breast, kindly volunteered her foster services. She nursed both children six weeks, at which period, believing herself to be enceinte, the generous task was relinquished.

At the age of six months the child was pale, fretful, and manifestly out of health. There was a chancrous-looking ulcer under the tip of its tongue, and the rest of the mouth and the throat was inflamed. It had a husky voice, obstructed nose, and soreness of the anus, which was surrounded by an areola of erythema. It was evident that the syphilitic taint existed here, and a course of hydr. cum cretâ was consequently commenced. About a week afterwards—on the 24th of November—my attention was directed to a "blood-blister" on the middle toe of its left foot. This was a well-defined specimen of pemphigus. After the blister opened, the whole toe became twice or thrice its natural size, and was occupied by a gummy ulcer which was soon covered by a dark-brown rupial scab. The child has done well under the adopted management, and at present (January 7, 1851,) appears in tolerable health. Its foster-mother is now in the sixth month of pregnancy, and appears not hitherto to have suffered through the diseased infant.

This midwife, although duly admonished respecting the impropriety of practising her calling while in this state, and of the danger she might incur in infecting others so long as her complaint remained uncured, recommenced, nevertheless, as soon as her health enabled her to move about, to attend patients. While her finger was yet unhealed, she rendered the required assistance to a respectable woman in humble circumstances, January 25, 1841. This person was forty years of age, had previously borne thirteen children, of whom nine survive, all free from disease, and she herself had always previously been healthy. Her husband also was a healthy man. On the twenty-third day after delivery (February 17), she presented herself to my notice, having her skin occupied in several places with venereal sores. These had first appeared eight or ten days after delivery in form of pustules, which soon burst and spread into broad flat gummy ulcers; of these ulcers there were four on the back, one on the middle finger of the left hand, one at the left angle of the mouth, and one on the left ala nasi. There was great irritation of the vulva, inflammation throughout the entire extent of the vagina, and a free sanio-purulent discharge.

The child at this period had a number of scaly blotches, with much surrounding erythema on the breech, back of the thighs, shoulders, back, and arms, which had existed about ten days. A very characteristic blotch extended across the middle of the nose, and the cuticle in most other parts of the body was covered with furfuraceous scales.

The same midwife attended another woman (E. A.) February 5, 1851. The child at birth was remarkably plump and healthy. On the twenty-eighth day it was

brought to me considerably shrunk and fretful; its skin was plentifully sprinkled with the eruptions of syphilitic varicella, most numerous about the ankles, knees, and upper extremities. They had been out ten or twelve days, and presented at one and the same time specimens of all the different stages of the eruption, from the incipient papular elevation to the vescicle, the pustule, and the crust. The mother had previously borne four healthy children, none of whom had suffered in like manner.

The same midwife attended a third woman, residing in the immediate vicinity of the last-named patient, on the 26th of March, 1851. The infant, said to have been plump and healthy at birth, was brought to me at the age of twenty days (April 15), having a great number of roseolous blotches about the nates and face, with purpura on the arms. The child was much shrivelled, its skin of bad colour, its voice husky, and was constantly restless and fretful.

All these patients, mothers and infants, were subjected to active treatment, and recovered perfectly, with the exception of the last-named child.

The foster-nurse of the midwife's infant was delivered at the full term of utero-gestation. The labour was protracted, and ultimately completed by instrumental assistance. It is to be regretted that the child perished in consequence, as it would have been interesting to ascertain how far the morbid taint, or whether any, had been imbided by the mother having given suck to the syphilitic child.

Case XXIV.

SYPHILOID SYMPTOMS SUPERVENING UPON GONORRHŒA; HEREDITARY TRANSMISSION TO THE OFFSPRING, IN WHOM THE TAINT EXISTED IN PALPABLE FORM AT THE AGE OF TWENTY-THREE YEARS.

Mrs. ——, an intelligent nurse and accoucheuse, now thirty years of age, consulted me in the spring of 1850 for disorder of the digestive organs. She is tall and well proportioned, of a mixed bilious lymphatic complexion, pale skin, with a tendency to loose plethora. She has been ten years married, but has not been pregnant, except perhaps in the third month after marriage, when the catamenial phenomena were once omitted, followed by menorrhagic symptoms at the succeeding crisis; but with this evacuation an ovum was not detected.

She presented herself the second time a month afterwards, complaining of painful menstruation and leucorrhœa. These symptoms, in fact, were the principal object of her first application; but either they were not then distinctly alluded to by her, or were misapprehended on my part. It appeared that she had been troubled with dysmenorrhœa since the function was first awakened at the early age of twelve years, and with leucorrhœa from childhood. The symptoms had become somewhat aggravated in severity since marriage, although a contrary effect had been looked for. She directed attention, also, to the state of her lips, which were cracked with fissures, which sometimes became deep and ulcerated, and occasionally emitted blood. There were three of these on the lower, and two on the upper lip, and the commissure on each side was in a like state. She complained of sore throat, and said she had for several years

been subject to attacks of what was called quinsy, but had never had abscess of the throat. She had been told by her mother that these symptoms were much more severe during infancy and childhood than they had been since.

The uterus was found to be somewhat above the ordinary unimpregnated size, and felt abnormally firm. There were upon its lower surface six or eight pustules, the largest of which equalled the dimensions of a small pea, all of a pearly whiteness; the surrounding surface was of a dull, mottled, brick-red colour. The orifice was surrounded by a raw surface, which seemed to be continuous with a similar state of the inner cervix. These appearances, with the very suspicious aspect of the throat and lips, led to inquiries respecting her history since marriage. It appeared, however, that she had suffered in precisely the same way when single, and that her husband, from her own description of his character, could not be suspected. She promised, however, at my request, to send him to me.

On the following day, instead of the husband, she again appeared, attended by her mother, to whom she had communicated the nature of my inquiries, and who volunteered the statement which follows :—

She was then (1850) fifty-seven years of age, was married at twenty, and bore one child to that husband, who, and the child, died soon after her delivery. She bore three children to a second husband, of whom the first two died in infancy; and when eight months advanced in her last pregnancy, at the age of thirty-four, she contracted gonorrhœa from her husband. There could be no doubt as to the nature of the disease, both from the character of the symptoms described, the husband's confession, and the

treatment adopted for both by the same medical attendant. She is not aware that either she or her husband ever suffered from any other form of venereal complaint. She knows, however, that he had experienced several attacks of gonorrhœa previously, and that subsequently to this last infection he had eruptions on the skin of a peculiar character, and swelling of the glands at the back and side of the neck, near the roots of the hairs, one of which inflamed and became an extensive abscess.

Delivery took place at the full term of gestation. The infant, who is the subject of the present article, appeared healthy at birth, but had a most severe attack of purulent ophthalmia, commencing on the third day. She experienced, afterwards, during infancy and childhood, excoriation of the anus and pudendum, with purulent discharge from the vagina, sore mouth and nose, tender eyes, and frequent attacks of eruptions on the face, chest, and joints. She was often under medical treatment, the remedies employed consisting generally of grey powders, which always afforded relief.

A similar train of symptoms continued to reappear from time to time afterwards, and were particularly troublesome about the second teething period. The eruptions after this age were generally confined to the joints, and especially the knees and ankles, which were often the seat of *rheumatic pains*. The leucorrhœal discharge was never absent, even from early infancy.

On making inquiry how long it was since any eruptions were seen, my attention was immediately directed to the inner aspect of the knees, which presented a singular appearance. The inner surface of the left knee-joint was occupied by a group of flat tubercles to the extent of two inches in one direction, and one and a half

in the other. Some of them were distinct, circular, a quarter of an inch in diameter: the central mass were grouped together, but still retained marks of their original distinctness and circular form. They were perfectly flat, a little elevated above the surrounding surface, and of a dull-red colour.

The treatment consisted in the use of Plummur's pill night and morning, and ioduretted sarsaparilla. At the end of four months, no local application having been employed to any part, the lips were entirely free from psoriasis, the fissures having entirely disappeared; the throat was quite well, and the eruptions about the knees were scarcely to be seen. She had also ceased to notice the leucorrhœal discharge, and the preceding menstrual period had been unattended with suffering. The uterus, however, was still slightly ulcerated, but not requiring any local treatment. At the end of January, 1851, not a morbid symptom remained. The treatment occupied about eight months.

This patient has remained in the enjoyment of health to this date, now a period of six years.

Case XXV.

SECONDARY SYPHILIS DURING PREGNANCY, SUPERVENING UPON A PRIMARY AFFECTION; TRANSMISSION TO THE INFANT, THENCE TO A THIRD INDIVIDUAL THROUGH LABIAL CONTACT, THENCE HEREDITARILY TO THE FOURTH REMOVE; FATAL RESULTS.

In the following Observations six individuals are implicated, whose cases may be conveniently distinguished under so many several sections.

α. R. S., by occupation a farmer, a strong, energetic

man, of sanguine complexion, contracted syphilis at the age of forty-three, in April, 1840, and communicated the infection in its primary form to his wife, before he was fully aware of its existence in himself. Both had virulent chancres, glandular swellings in the groin, and other symptoms, for which they were several months under treatment. Their medical attendant, an intelligent practitioner, who is my intimate friend and relative, having a prejudice against the use of mercury generally, except as an aperient medicine, treated the complaint with ioduretted sarsaparilla, black lotion, and suitable dietary restrictions, under which both patients appeared steadily, though slowly, to recover. The husband was considered to be well in two months, and further treatment deemed unnecessary. Six weeks after having discontinued the remedies, however, a crop of roseolous blotches broke out on different parts of his body, accompanied with sore throat, excoriation of the glans and preputium penis, and enlargement of the inguinal glands, but without suppuration. These symptoms in a measure subsided under the same plan of medication which had been before employed; but during convalescence he experienced a most severe attack of *rheumatism* of the head and joints.

In November, 1840, seven months after the inoculation, he first presented himself, at the suggestion of his medical attendant, to my notice. At this date the arms, legs, fore part of the chest and forehead, were thickly occupied by papular eruptions arranged in groups, measuring from a quarter to half an inch in diameter, irregularly circular in form, of syphilitic tint, and scaly. They had come out on the subsidence of the rheumatic affection already mentioned, which they seemed to have had the effect of

carrying away. The fauces were tumid, of a dark-red and mottled aspect, patched with aphthæ. Iritis was just commencing, and soon assumed a severe form. He was immediately placed upon a course of mercurial medicine, by which he shortly and unexpectedly became ptyalised. This action was slightly kept up for a period, by means of a milder form of the medicine than was at first used—the pil. hydr. subm. co.; and subsequently the ioduretted sarsaparilla formed the principal remedy. The treatment was continued six or seven months, at which time the cure appeared to be complete. But he afterwards experienced several relapses at long intervals; and in the autumn of 1844, having been frequently troubled with a distressing form of *articular rheumatism* and sore throat, with eruptions about the head and neck, it was judged prudent to place him again upon a protracted course of mercurial alteratives, since which time he has had no return of the annoyances.

During the period of his first convalescence under my management, a circumstance happened to this patient which may, not inappropriately perhaps, be mentioned in passing. I need offer no suggestion relative to its etiological significance, but simply state the circumstances of the case as they presented themselves to my notice. At the end of the year 1841, nineteen months after the reception of the venereal poison, he again sought relief, but not on this occasion for venereal symptoms. For several weeks past he had been grievously annoyed by the presence of lice about his person, principally on the trunk of the body, a great number of them being found in the folds and meshes of his flannel vest. He was a man scrupulously cleanly in his habits. None were found about the head, for he was almost completely bald, and the little

hair left was fine and silky; he had never before, to his knowledge, been troubled with these vermin. It was at first thought that they must have been accidentally caught from some other person, but he was not in the habit of sleeping from home. He began to change his flannel garment more frequently; but the vermin increased in numbers, and the circumstance so distressed him, that fears began to be entertained for the integrity of his intellect. It soon became evident, however, that the incubation of this loathsome parasite took place in his own skin. On the occasion of his application to me, a multitude of irritable-looking points were situated upon the integument around the chest, especially in front, from which, it was stated, the nits could be detached by lateral pressure. At this period the generation of them was so considerable, that the flannel vest put on clean in the morning, was crowded with them by the end of twenty-four hours. For a length of time remedies were unavailing. Sulphur, oxymuriate of mercury, white precipitate, and hellebore, were in succession freely tried, but with very little and only temporary benefit. At length, by mere chance, a mixture of iodide of potassium and prussic acid in full doses was given, and in a few days the cure was complete. In all, he took but sixteen or eighteen doses of the medicine. The disease has not since returned.

β. His wife, a very intelligent woman, was thirty-eight years of age, and six months advanced in her ninth pregnancy, when she contracted the venereal affection. All her previous pregnancies had been successful, and hitherto she had enjoyed uninterrupted health. The disease appeared in form of a deeply-excavated chancre on the right labium pudendi, with great tumefaction and inflammation of the surrounding parts, requiring the

application of leeches and poultices. The right inguinal glands were enlarged and painful, but did not suppurate. Her recovery was less favourable than that of her husband; for, at the end of three months, although the original sore was healed, there remained considerable hardness about the spot which it had occupied, with swelling and rawness of the vulva, free purulent leucorrhœa, and sore throat. Delivery took place at the full term on the 3rd of August, 1840, the child being alive and well grown. Parturition was attended with intense suffering as compared with her previous cases, and the vaginal irritation was not a little aggravated by the process. During the puerperal period she experienced an attack of skin disease every way similar to that from which her husband was just then recovering, and which, together with sore mouth and throat, inflamed vagina, uterine irritation, and wasting discharge, served to entail a painful and protracted convalescence. She suckled her baby, and in addition to other sufferings, the nipples became cracked and excoriated, followed by inflammation of the axillary glands and absorbents.

She was first brought to me a few days after her husband's application, on the 3rd of December, 1840, four months after delivery, and about seven since the invasion of the primary symptoms. This was her state:—the general health miserably decayed, the skin sallow, flesh wasted, appetite impaired, spirits broken. Numbers of psoriac patches of genuine syphilitic character were thickly spread over the limbs, both upper and lower; more thinly scattered and less scaly on the chest, neck, and face. The gums were swollen, spongy, and angry-looking; *several teeth had fallen out*, and the rest of them were so loose that their removal with the fingers could have been readily

accomplished; the fauces were ulcerated, the breath exceedingly sickly and offensive. These local disturbances were not due to the action of mercury, for at this period she had not taken any. An abundant blennorrhagia vaginalis remained, the external genitals being tumid, and studded with soft, flat tubercles.

The treatment of this case proved unusually difficult and disheartening. The remedies employed were necessarily various; for, although benefit was derived for a certain period from almost every article employed, each ceased shortly to be effective, and the disorder showed a tendency to become aggravated, unless other means were speedily adopted. At first the ioduretted sarsaparilla appeared to answer the desired end for some days; but this remedy had before been freely tried and failed, and it now soon became inert. For iodide of potassium, the oxymuriate of mercury was substituted, but this so nauseated the stomach that its immediate discontinuance was unavoidable. To these succeeded chalybeates in various forms, and quinine; but the iodide of iron, combined with extract of cinchona and rhubarb, proved the most efficacious, although even this seemed also to lose its curative power after a time. The ioduretted sarsaparilla was again had recourse to, and was now decidedly efficacious. This and the preceding prescription were alternately continued during several months—from February till the end of May—when the patient, much better in health, was removed to a distance, for the benefit of change of climate.

She returned home after an absence of six weeks, apparently much better: she certainly looked more healthy, and expressed herself well with this trifling exception: there still remained a leucorrhœal discharge, which was offensive both in appearance and smell, and there was

occasional excoriation of the vulva, accompanied with pain in voiding the urine. These symptoms were regarded, however, as of little importance. I made no very minute examination of the parts, regarding the phenomena as merely the remains of former lesions, which it was hoped Nature in time would rectify. The lotio plumbi, which had before been prescribed, was recommended to be continued, and I saw no more of her for about eight months. This was in the spring of 1842, when a severe attack of what had been denominated *rheumatism* confined her to bed. It consisted of violent pain of the head, upon which were found several periosteal swellings, hard, and exquisitely painful, with others of similar character on the ulnæ, tibiæ, and on the instep of one foot, and soreness of the mouth, with ulceration under the tip of the tongue. She had excoriation of the pudendum, and the usual discharge continued as before. Her restoration seemed to be satisfactory after the employment of leeching, poulticing, and a course of ioduretted sarsaparilla.

During the following four years the vaginal irritation continued in precisely the same state, and she experienced several attacks of eruptions, with sore mouth and throat, during one of which, of unusual severity, in 1846, my advice was again solicited. An angry-looking ulcer with hardened base was situated on the fold of membrane beneath the tongue near the orifice of the ducts, one of which was completely obliterated by the pressure, and had caused a large salivatory tumour in the duct of the sublingual gland the size of a poulet's egg. My attention having by this time been more particularly directed to lesions of the uterus, specular inquiry was now practised, and the uterus found extensively diseased. Its

lower section was in a state of inflammatory hypertrophy, upon which were situated several raised aphthous patches: the orifice was surrounded by a suppurating surface which appeared to extend within the organ. Hitherto she had not taken any mercury as a curative remedy.

She was at once subjected, at her own request, to a course of mercurial alteratives, by which a decided action was procured and continued perceptibly for many weeks. In the mean time repeated applications of caustic were made to the uterus, this procedure being deemed by me at that time essential to the cure, although I now believe recovery would have been equally perfect with less of local interference. Every morbid annoyance completely disappeared under the mercurial treatment, and no relapse has since occurred. I have been in the habit of seeing her from time to time. She continues at this date (January, 1851) in robust health.[1]

The omission of this plan of treatment in the first instance reveals, in my opinion, the cause of her protracted suffering. I feel convinced that had free mercurial inunction been conjoined with the use of the first remedy—namely, the ioduretted sarsaparilla—although the system was already in an advanced stage of venereal cachexia, the troubles which she afterwards endured would have been avoided.

γ. The infant, well developed and apparently healthy at birth, soon became fretful and emaciated. At the age of four weeks its skin was almost covered by a crop of eruptions at first regarded as measles; but the blotches did not subside, and became scaly. The mouth and throat were sore and aphthous, the voice husky; the

[1] This patient visited me with her son on September 18, and again October 26, 1856, and was still perfectly well.

nose was irritable and obstructed, and the eyes inflamed. Hydr. cum cretâ was administered, and the external symptoms were soon mitigated, yet the child's general health did not improve. It suffered in a similar manner at the age of four months, when both parents first came under my care. I recommended the resumption of the former remedies, but did not again see the patient for some time, as their residence was at a considerable distance from the town. Its improvement was for a period satisfactory; but in March, 1841, when thirty weeks old, another relapse took place more severe than that which had preceded, and the little patient was again brought for examination. Its lips were cracked and puckered, frequently bleeding, especially at the corners of the mouth. The whole mouth and throat were inflamed and excoriated in patches, the nose irritable, the voice husky, with noisy breathing; the eyelids were angry and granular. Several gummy sores were situated about the lips, neck, and lower part of the body; the vulva was tumid and inflamed, a purulent matter exuding from the vagina, and the anus was irritable and surrounded by an areola of papular erythema. Small tuberculous eruptions were scattered about the wrists and ankles, in which situation were several cicatrices of others which had formerly existed. It died, extremely emaciated, at the age of thirty-six weeks.

A few days before its decease, several perforating ulcers formed on the upper lip. They appeared at first as slightly raised tubercles of a purplish colour, having scarcely a blush of coloration beyond their immediate boundaries; they soon became depressed, and with astonishing rapidity excavated the subjacent structure as far as the labial muscle. There were five holes in this

condition, each one from one to two lines in width, and rather more in depth, secreting nothing except a little brown serum, and having a clean basement of what seemed to be red muscular fibre. The appearance was as if the absent piece had been neatly removed by means of a punch.

These parties had a daughter, Z., then in her eleventh year, and a niece, M., a few weeks her senior in age, who, for the convenience of attending a neighbouring school, had her temporary residence with them, and was regarded as one of the family. Z. was the usual nurse of the infant, and with the affectionate consideration of one beyond her years, indulged her fondness for it in untiring assiduity. M. shared also with her cousin in attention to the invalid. Both these girls became infected, by often kissing the lips of the infant, with lues venerea, which made its appearance in one and the other after about the same period of incubation, producing its effects in the following manner:—

When the infant was about six months old—(it had never ceased to be an invalid, notwithstanding the partial and occasional relief derived from treatment)—both these girls began to complain of indisposition: they were languid, feverish, restless, and suffered from *pain of the head and limbs*. These symptoms were looked upon as the effect of watching and loss of rest. Soon afterwards they had soreness of the mouth, and eruptions about the lips. Z. had a tubercle on the right side of the mouth, at the junction of the lips, and M. had one of a like kind on each side. These sores were shrewdly suspected by the mother to be owing to their having so frequently kissed the sore mouth of the baby during its fretfulness, and they were consequently cautioned against this practice. But the mischief was done.

δ. Some weeks before the baby's death M. was confined to bed. The tubercle on each side of the mouth was perceptibly enlarged, and divided by a fissure which often bled on opening the mouth, and a few unsightly eruptions had come out about the mouth and on the cheeks. The more urgent symptoms, however, were violent *aching of the head and limbs*, with fever. During the treatment adopted, a plenitful crop of squamous eruptions came out on every part of the body, affording much relief to the constitutional disturbance. When she was considered convalescent, the right knee began to swell and was painful, and soon assumed the form of sub-acute *articular rheumatism*. Notwithstanding the active measures employed, the use of this joint was never afterwards restored; it remained swollen and painful, and was regarded eventually as a hopeless case of white swelling. The soreness of the mouth was mitigated, but a laryngeal affection remained, with cough, which, in process of time, went on to implicate the lungs. At thirteen years of age she had swelling and excoriation of the labia pudendi, with purulent vaginal discharge, which persisted. In her sixteenth year she began to menstruate, and this function was for some time discharged with tolerable regularity, but with great suffering, the evacuation being disordered and scanty, a puriform blennorrhagia occupying the intervals. During the following four years she was constantly invalided; her complaints being sore throat, cough, and expectoration, glandular swellings about the neck, eruptions on the face, head, and back, loss of tufts of hair, and great emaciation; not the least of her sufferings were, dysmennorrhœa, excoriation of the labia pudendi requiring remedial interference, purulent leucorrhœa, irritable bladder, and pain in void-

ing the urine. She died in August, 1850, ten years after having imbibed the seeds of her fatal malady.

ε. Z., the daughter, of sanguine complexion and ruddy countenance, was of stronger and more enduring frame than her cousin. At the time of the baby's death she was confined within the house on account of sore mouth and throat, and *rheumatism*, so called, of the head. On the subsidence of the head affection, a crop of eruptions came out on different parts of the body; those on the face were confined to the right side, being continuous with the tubercle at the commissure of the lips before spoken of; they appeared to be flat eczematous vesicles, terminating in scabs, at first distinct, but afterwards confluent. They soon became covered with thin brown scales, slightly depressed in the centre, more elevated at their circumferences, where they terminated in a white fringed border, from which point the eruptions gradually enlarged until they became confluent. Six months after its first appearance, the eruption was a serpiginous psoriasis, extending from the corner of the mouth to the outer angle of the eye, from the outer side of the cheek across to the left side of the nose. In this state it has existed, with but temporary mitigation, ever since. The first menstrual change took place in her sixteenth year, and has ever been attended with great suffering. She has also experienced constant leucorrhœa, with vaginal irritation. It was thought that her health was in a better state after puberty than before: the eruption on the face was paler, and almost disappeared during each catamenial crisis; but at these times she suffered intensely from *headache*, which subsided as the eruption reappeared in its wonted form after the period had passed over.

In her seventeenth year, feeling ashamed of her deformity, she spent a few weeks in the house of a druggist, who was her near relation, and who had proposed to cure her complaint. At his instance consequently she took a quantity of medicine, and had her face freely and repeatedly covered with a solution of caustic, by which means the eruption almost entirely disappeared. But the head at the same time became so exceedingly painful, and the throat ulcerated and swollen, with threatened suppuration of the parotid glands, that she regretted having exchanged the eruptive affection for so distressing an alternative. In the midst of these troubles the eruption reappeared, and her general health was comparatively restored. From this period the cutaneous affection, with the dysmennorrhœal and leucorrhœal symptoms, continued unchanged for several years, and were uninterfered with by the adoption of any special plan of treatment for a long time afterwards.

I was several times consulted concerning these two patients both by my friend (their medical attendant) and by themselves; but, like him, I was not fully convinced as to the real nature of their cases, and the means recommended never afforded more than temporary benefit.

In August, 1849, the daughter had entered into a matrimonial engagement; but the propriety of such a step became a question of serious moment in the eyes of the mother, who alone seemed fully cognizant of the real nature of the disease under which the two cousins were suffering. The reasons which she gave on this occasion as the ground of her objection to her daughter's union—not to the match selected, but to any matrimonal alliance at all—was the means of placing the two cases, as regarded their nature, in a proper point of view. Her

concise repetition of the manner in which the disease was first contracted; the similarity of the symptoms in the cousins to those of the infant from whom the infection was imbibed; its constant presence, and its analogy in several of its phases, in one or other form, ever since; and the devastating inroads it had gradually effected on the general health, especially of one of them, and which the mother had silently watched with poignant anxiety—left not a shadow of doubt on my mind as to the venereal character of the disorder as it existed at this remote period. M. was now past recovery. Her laryngeal and pulmonary disease, the white swelling of the knee and extreme emaciation, showed that her case was beyond the reach of remedies to relieve. It was deemed prudent, however, that Z. should undergo a course of treatment before her settlement was determined upon: but this aim was frustrated. A hasty marriage was consummated, and consequently no treatment was adopted on that occasion.

ζ. She was delivered of her first child at the full term of utero-gestation, on the 6th of August, 1850, a few days after her cousin's decease; and now came the opportunity of proving whether the mother's disorder was venereal or not. At the age of three weeks, the infant, a female, healthy-looking at birth, was fretful and whining, its flesh wasted and flabby. At five weeks old, there appeared a number of copper-coloured blotches thinly scattered over different parts of the body. These blotches were somewhat peculiar: each was nearly the size of a shilling, irregularly circular in shape, of a brick-red colour, slightly raised. After a few days, without visible vesication, a quantity of gummy serum oozed from their surfaces, concreting into scabs, which, after a

period, fell off, leaving deep-red marks, and being succeeded by other eruptions of a similar character. One of them, situated in the fold of skin between the neck and shoulder, appearing at first like a patch of intertrigo, became, ten days later, a broad ulcer with a defined boundary, and surrounded by an areola of a coppery redness. The mouth and throat were aphthous, and the mother's nipples were cracked and excoriated, with painful swelling of the axillary glands and inflamed absorbents. Antiphlogistic remedies were prescribed for the mother, and powders of hydr. cum cretâ for the child, under which both improved, and I saw them no more until about two months afterwards.

At the age of fifteen weeks the child was again brought, attended by its mother and grandmother. Its mouth had never got well, and eruptions continued appearing about the lips, which at this period were puckered and bleeding. The body was thinly covered with eruptions of the character already described. The ulcer on the left side of the neck had cicatrised, but another of still larger dimensions had formed on the right side. The vagina was inflamed and excoriated, exuding a purulent secretion, and the anus was fissured, and surrounded by a brown erythema. Three weeks later, the patient seemed in some respects improved, the eruption having in great measure disappeared, except a few blotches, the largest of which, about an inch in diameter, occupied the summit of the left buttock; the vagina was still irritable, the irritation being apparently kept up by the occasional presence of the urine, and the mouth continued sore. The principal ailment, however, at this date, appeared to be the broad ulcer on the right side of the neck before mentioned. Its measurement from the fore to the back

part was exactly two inches and a half, and an inch and a quarter in the opposite direction: its surface was coated with a whitish glutinous matter. Its long diameter was traversed by a deep fissure correspondent with the fold of skin in this situation, from the bottom of which sprang out six or seven warty excrescences, broad at their summit, and narrow at the point of attachment. Its skin was of a dirty sallow complexion, œdematous on the face and extremities.

The child was subjected to a course of mercurial inunction practised on the abdomen, by which, after a period of two months, the symptoms entirely disappeared, and the case was accordingly marked cured in my note-book. I was not a little surprised to see this same individual again at my rooms, accompanied by its mother and grandmother, on the 1st of July, 1851, at the age of nearly eleven months, having the nates, thighs, shoulders, and face variously sprinkled with the flat syphilitic tubercle. The blotches were thinly scattered, distinct, circular, half an inch in diameter, and of a deep copper colour. Its mouth was sore and slightly excoriated. At this time both mother and child were submitted to another course of treatment, by which a cure was effected in the mother's case. There is little doubt that the relapse of symptoms in the child was owing to reinfection by its mother, as she had omitted to continue the remedies prescribed for her, and had continued nursing.

It is a singular circumstance, that the nasal bones, originally well and prominently formed, are now compressed to a degree amounting to deformity. This is not a family trait. It is a common result of syphilitic ozæna in infants when of long continuance, being probably due to arrest of development, and perhaps also to

destructive absorption; but there was no exfoliation of bone.

The uterus of the parent was on this occasion, for the first time, submitted to examination, not so much with a view to local treatment, as for the purpose of pathological information. Its lower section was hard, tumid, irregular, of a dark-red colour, mottled, and presented the usual indications of chronic inflammation within the cervix.

The reader will doubtless feel that an apology is due for the tedious length of the preceding detail. It was thought, however, considering the present state of knowledge on this subject, that it could not with advantage be farther compressed; for even as it stands, it is much within the compass of the original notes. To give a summary of particulars appears useless: the history bears its own comment. Great as the evils which syphilis entails are acknowledged to be, I feel convinced that they are far from being fully revealed; and there can be little doubt that, were its disastrous consequences more generally understood, morality would be thereby profited, even among the most dissolute.

The concluding portion of this history, as regards the treatment of the two last-named patients, will be found in Chap. VI. following.

Case XXVI.

DISEASE OF SYPHILITIC CHARACTER OCCURRING FIFTEEN YEARS AFTER THE RECEPTION OF THE POISON THROUGH THE MEDIUM OF THE BREAST.

A youth, aged fifteen years and a quarter, contracted gonorrhœa in November, 1850. I saw him on the

fifteenth day. The urethral discharge was profuse, but the irritation moderate; no ardor urinæ, chordee, or other sign of high inflammatory action existed. Inoculation on the thigh produced no positive result.

On the fifty-third day, the discharge still continuing, although in trifling quantity, a crop of eruptions, considered by the patient's friends to be chicken pox, came out over the whole body. The eruption was undoubtedly vesicular, but of peculiar character. Each elevation consisted of a tubercle the size of a small pea, moderately firm, of a dull-red colour, springing out of a narrow areola, and surmounted by a diminutive, transparent vesicle, which, on being opened and the serosity removed, exposed a hole large enough to contain the head of a small pin. After six or eight days, the vesicles degenerated into thin dark grey crusts, which in a few days more separated, leaving raised flattened tubercles, the base of each occupying the same extent of surface as the original formation, and being precisely similar to an eruption on his back, which the boy had been subject to from time to time since childhood. The eruptions on the present occasion were everywhere distinct, of a brick-red colour, and gradually subsided in about three weeks from their first appearance, leaving a purple stain, which faded slowly. Other tubercles continued appearing as the first set died away, but the secondary ones had no vesicle.

The eruption, which had been regarded as chicken pox, nearly corresponded in character with that vesicular form of disease described by Cazenave as "varicelle syphilitique."

Had this case occurred in one previously unknown to me, it would probably not have claimed particular attention; but I had known the patient from early childhood,

and had frequently prescribed for him at certain seasons of the year for an eruption very similar in character, situated principally on the back: I mean that the eruption which he formerly had was tubercular, but without vesicular summit. It had frequently been urged by his mother that this eruption was venereal, of which I had always, until lately, been incredulous. The following history will probably enable the reader to form his own opinion on the subject.

At the commencement of my career as practitioner, in 1837, when this youth was a child nearly two years old, I attended his mother in abortion. The case progressed unfavourably, and the advice of the late Mr. Fawdington was solicited. Mr. F. had previously attended this family, and, with the consent of the parties, who resided in my immediate vicinity, transferred them to my care. On this occasion he alluded to a circumstance which he deemed singular, and which had tended materially to confirm his belief in the doctrine which advocates the identity of syphilis and gonorrhœa as forms of the same disease. In the second month after her delivery of this boy, who was her first child, Mr. F. had treated the mother for gonorrhœa, which had been contracted at this period from her husband, whose case also he treated. At the age of three months the infant had purulent ophthalmia; whether arising from direct application of the gonorrhœal matter, or from constitutional infection, is uncertain. Mr. F. believed it to arise in the latter way. After the infant was weaned from the breast, at the age of twelve months, he had a plentiful crop of syphilitic eruptions over the whole body, with sore mouth and throat, requiring active treatment. On the occasion of my first interview, the child, at the age of

two years, had another crop of squamous eruptions, which Mr. F. said were syphilitic. At five years of age he suffered severely from inflammation of the fauces of an obstinate and severe character, supervening upon a remarkably mild attack of scarlatina. I now believe that the severity of this affection was due to the presence of the syphilitic poison; first, on account of the long-continued and intractable nature of the throat affection; and, secondly, from another circumstance which does not usually occur in simple forms of disease. It was this: the wounds made by the leeches used on the occasion festered, and it was thought the reptiles were poisonous. The leech-bites not only festered, but became excavated ulcers, with raised, hard, and thickened edges, which were long in healing, and have left depressed cicatrices of unusual size, some of them measuring at this day—ten years after the occurrence—two or three lines in diameter.

The mother suffered long from puriform leucorrhœa and violent pain in the region of the right hip, which were treated by injections, leeches, blisters, and plasters; but were only temporarily mitigated until the free use of nitrate-of-silver injections was had recourse to, in 1842. The disease, however, was not even at this time cured. She aborted several times in the third month of (in addition to one successful) pregnancy during the following three years, and was at length cured by undergoing a mercurial course in 1846, and by caustic applications to the uterus, which was until then in a diseased condition.

It may possibly be objected against the genuineness of this youth's case as one of constitutional syphilis. To such objections, if any there should be, I would simply say in answer, that tuberculous eruptions do not, so far

as I know, occur as a simple form of disease; or if they do, their physiognomy and habitudes are widely different from those here described. On the contrary, according to Ricord and others, they happen as a tertiary symptom, coming on at a remote period after the primary infection.

The preceding case, if deemed of specific nature, serves to illustrate three points in the habitudes of this infection:

1st. That gonorrhœa, implanted upon the female system during the period of lactation, may be transmitted to the child she suckles, upon whom may be developed symptoms similar to those consequent upon constitutional syphilis.

2nd. The tendency which, thus implanted, it has to derange the reproductive system, if not permanently, at least for a long period of time.

3rd. That the poison in this way imbibed may continue to operate injuriously upon the health of the offspring to an extent not yet ascertained.

In February, 1856, the brother of the preceding patient, aged fifteen years and eleven months, came under my notice on account of a periosteal tumour implicating the metacarpal bones of the fourth and fifth fingers on the dorsal surface of the right hand. The swelling was slightly inflamed, but not very painful. It was seven times leeched at short intervals, and poulticed; after which the hand was kept constantly enveloped in a wet bandage, and at the end of twelve weeks the tumour had entirely disappeared. A month later (June, 1856) he came again, with the head awry. The sterno-mastoid muscle of the left side was thickened, shortened, prominently raised from its bed, and very tender under pressure. The mischief rapidly increased, and soon the

head became considerably depressed towards the left shoulder, and immoveable. Leeches, fomentations, and poultices failed to relieve, and in a short time the lower third of the muscle swelled out and became a large carbuncular abscess, from which a slough separated some time after a considerable quantity of offensive pus had been let out by incision. The cavity became an indolent ulcer, coated with a yellowish, glutinous film, surrounded by a raised, hardened, angry border, with no disposition to heal or to lessen in size. Preparations of iron, cod-liver oil, quinine, and other remedies, with a variety of local applications, were tried for about eighteen weeks, without producing any amendment. On November 5, calomel, in doses of one and a half grains *per diem*, was prescribed, under which a visible improvement was noticed in eight or ten days. This remedy was contiued in the same form to the beginning of January, 1857—from eight to nine weeks—during which time he took about ninety grains. The local application during the same period was the ointment of white precipitate. From the commencement of this treatment an improvement was manifest: the edges of the ulcer gradually softened down, the cavity became healthy, and cicatrisation was nearly complete on the 15th of January—the head being freely moveable and erect. There was no effect whatever produced by the medicine on the mouth.

Case XXVII.

SYPHILITIC SYMPTOMS NINE YEARS AFTER THE PRIMARY AFFECTION; SUSPICIOUS SYMPTOMS IN THE WIFE AND OFFSPRING.

A young wife, twenty-seven years of age, three months advanced in her third pregnancy, consulted me in February, 1850. She was a fine tall person, of healthy parentage, native of the north of England. Her first pregnancy terminated at the end of the eighth month; the child was puny, and speedily pined away, and died on the eighth day. Her second pregnancy ended also prematurely—at seven months—in the birth of twins, one of whom lived eleven, the other twelve days. She expressed herself fearful that the present pregnancy would also have an unfavourable issue, as she had already been troubled with intermitting pains, and was out of health generally. Judging this to be a case of what is somewhat vaguely denominated irritable uterus, no examination was made. The tincture of aconite, in doses of three, gradually increased to twelve drops, administered in a saline vehicle, succeeded in relieving her effectually, and she was delivered at the end of the eighth month, July 29, 1850. The child, apparently healthy at birth, soon became emaciated, having aphthous mouth and eruptions on the lips, and died from diarrhœa of a few hours' continuance on the twelfth day. There had been a purulent discharge, occasionally tinged with blood, from the vagina ever since its birth.

On inspection, thirty-eight hours after death, the vessels of the duodenum were found greatly congested, the pancreas enormously enlarged, and its structure

distended with a milky fluid, as though it had retained all the secretion formed by it since birth. The rest of the abdominal viscera were healthy. The organs of the chest and thymus gland were also free from disease. The cavity of the vagina was entirely filled with a white glairy fluid, which, under the microscope, examined by myself and two experienced microscopists, was found to contain a multitude of pus-globules. The lower half of the uterus, exceeding in size the upper section in fœtal life, was of unusual dimensions. The orifice was patulous, admitting readily a large-sized catheter; the labia were greatly congested, of a bright scarlet colour, and the cavity of the organ was full of a thick white glairy mucus, which was also mixed up with pus-globules, though these were fewer in number here than lower down. On submitting a minute slice of the congested labium to microscopic examination, the capillaries were seen to be closely packed with blood-discs, some of which had escaped from the divided vessels; and amongst them were seen a number of grey globules with puckered borders, containing three to six nuclei.

The father of this infant, a few weeks before its birth, consulted me for *rheumatism* of the shoulders, sore throat, and disordered digestion, from which symptoms he did not recover so speedily or favourably as might have been expected, considering their apparently simple nature. The character of the infant's ailments, and the mother's history since marriage, led to a more careful inquiry, the result of which is as follows:—For several years past he had frequently suffered from a train of symptoms every way similar to those for which he was then under treatment, and which were often attended with scaly blotches on the face and elsewhere. The *rheumatism* had generally

been confinedto the shoulders and the right ankle and heel. He referred their origin to an imperfectly-cured venereal affection, contracted while residing in the West of England nine years previously, namely, in 1841, up to which time he had enjoyed excellent health; but since then he had never been well. The primary symptoms were an indurated ulcer on the side of the frænum præputii, with abscess in the corresponding groin. From dread of exposure, he allowed seven weeks to elapse after the inoculation before he applied for relief. At this period the skin became suddenly covered with roseolous blotches, the throat swollen and ulcerated, and the eyes inflamed, which inflammation shortly merged in a severe iritis. The treatment, which lasted seven or eight weeks, consisted in the use of mercury both by inunction and pills, during which his mouth was made tender, but he was not really salivated. Nine months afterwards, when residing in a different district, he suffered severely for several weeks from pain of the head and limbs, with rigors, loss of appetite, and sore throat, attributed to the effects of cold. The pains were at length relieved by a plentiful eruption of blotches, which the medical man consulted pronounced to be venereal. Two years later, his occupation having obliged him to remove to another and remote part of the country, having in the interim frequently suffered under the like symptoms in milder form, he had another severe attack of illness similar to the preceding, which a third medical man pronounced to be syphilitic. Since then he has continued to suffer in like manner, but the eruption has been for the most part confined to the lower part of the face.

When I examined his throat, in July, 1850, with the above history before me, I had no hesitation in declaring that the venereal poison was still prevalent in his

system. The whole of the fauces were of a dark-red, mottled aspect, and a superficial aphthous ulceration occupied each tonsil, and also the veil of the palate.

After the death of the infant, the wife was removed to her friends in the North of England, whence she returned no way improved in health. She visited me on the 18th of September, eleven weeks after delivery, complaining of great languor and debility, rigors, *aching of the head and limbs*, especially about the left hip and around the pelvis, and loss of appetite. She had menstruated a week previously, the discharge having been profuse during seven days, mixed with small clots, and attended with great suffering, which confined her to bed part of the time. A profuse leucorrhœa of purulent character succeeded. This symptom, with which she had not been troubled in her single state, had existed ever since marriage, and it was to this that her weakness and all other ailments, as she thought, were to be attributed.

The lower section of the uterus was unusually large, hard, and nodulated. Viewed through the metroscope, the whole surface was found intensely inflamed, especially around the orifice, which was fissured with ulcerated chinks extending inwards, whence a quantity of glairy muco-purulent secretion escaped.

Both husband and wife were subjected to a course of treatment, by which they seemed to get perfectly well.

The wife was the fourth time delivered June 31, 1851, at the full term of utero-gestation, of a healthy, well-grown female child, who appeared to be remarkably well and free from disease at the age of three weeks. The mother, so far, had had a favourable recovery.

I have been unable, thus far (1857), to meet with this patient since the preceding report.

Case XXVIII.

SECONDARY SYPHILIS COMMUNICATED BY VACCINATION; FATAL ISSUE.

The notes of this case having been lost or destroyed, the particulars, with the exception of the dates, are consequently recorded from memory.

On the 13th of June, 1837, I attended E. H., wife of the janitor of one of our medical schools, in confinement; and again on the 3rd of February, 1839. Both children were born alive and in health: the first was still living a short time since. When the second infant, a boy, was about three months old, I performed the operation of vaccination upon him: the lymph used for the purpose was procured from a neighbour's child, selected by the parties themselves. The vesicles from which the matter was taken were very large, with a great extent of surrounding inflammation; a number of erythematous blotches occupied the skin in several parts of the body, which I then looked upon as due to the prevailing vaccine irritation. The vesicles in my patient developed themselves rapidly. On the ninth day they were unusually large; each sore was surrounded by deep and extensive inflammatory hardness, the redness extending around that part of the limb, and the axillary glands were enlarged and tender on both sides. About the twelfth or fourteenth day, both wounds were deep, broad ulcers, with extensive induration; the glandular swelling in the right armpit had acquired a fearful size, and seemed disposed to suppurate. On the twentieth day, this swelling had become an extensive abscess, which on being opened gave exit to a large quantity of offensive

matter; the vaccinated spots were angry-looking, excavated ulcers of chancrous aspect, with no apparent tendency to heal. A number of copper-coloured blotches were at this period present on the skin; the mouth was inflamed and excoriated, and appeared to have communicated a similar lesion to the mother's nipples, with other disturbances, to be further noticed presently. The child had been hitherto treated by simple remedies; but having by this time obtained information which led to the belief that the infant from whom the vaccine virus had been obtained laboured under the syphilitic taint, I prescribed mercurial inunction and small doses of hydrargyrum cum cretâ, which seemed for a time to be attended with benefit. Shortly, however, the patient's elbow-joint become swollen and inflamed, and several periosteal swellings came out on the front of the right leg, one of which formed into an abscess, which never healed, the subjacent bone being extensively denuded. The infant died at the age of about four months and a half.

It appeared upon inquiry that the infant from whom the vaccine matter was taken had suffered soon after birth from purulent ophthalmia, accompanied with blotches on the skin, for which it was several weeks under treatment. Its mother was said to have had gonorrhœa, contracted from her husband, during pregnancy, but of which she believed herself quite cured. I had not an opportunity of learning the subsequent history of these parties.

The case of the mother of the deceased proved to be one of a very distressing kind. The breasts, with the nipples and superficial absorbent vessels, became so inflamed as to necessitate the discontinuance of their use in nursing. The disturbance was most severe on the left side, extending to the axilla, in which situation an extensive abscess

formed, which gave exit to an incredible quantity of offensive purulent matter. As the abscess contracted, blotches of roseola came out in various parts of the body, and these, I remember, continued for a considerable period, varying with the state of functional health prevalent at the time; but she was ever afterwards an invalid. She constantly complained of rheumatic pains of the head and limbs, especially troublesome in the night-time, and of urethral irritation, implicating the neighbouring parts. The cellular structure embracing the urethral canal was enormously thickened, hard, and exquisitely tender; the whole vagina was inflamed and highly irritable, and there was an abundant sanious blennorrhœa, which afterwards became very offensive. At a later period, a deep-seated swelling began to appear in the left hypogastric region; the lower division of the uterus was at the same time enlarged, nodulated with irregular, firm elevations encroaching upon the vaginal cavity, painful under slight pressure. As the abdominal tumour increased in size, she became dropsical, and died April 30, 1842, at the age of thirty-eight, about three years after the invasion of the mischief occasioned by vaccination.

I made an examination of the body the day after death. The left ovary was the size of a child's head, of unequal density and structure, being, on one side, of schirroid hardness, and elsewhere multilocular, the cells, as well as the Fallopian tube, being filled with soft cerebriform cancerous matter. The whole uterus was schirroid.

Case XXIX.

SYCOSIS. SUSPICIOUS SYMPTOMS IN THE OFFSPRING.

R. W. D., of healthy and respectable parents, of medium stature, dark, bright complexion, vivacious, energetic, for a brief period fascinated the play-going public by her extraordinary personal attractions and vocal talent. Her career, however, in this sphere was all at once terminated by her matrimonial union, at the age of seventeen, with a man of worthless character, possessed of considerable wealth, which, within a very few years, he recklessly squandered. Then ensued a series of domestic trials and privations. The husband, a man of education, by no means wanting in talent and energy, succeeded in procuring a public appointment, which was sufficiently lucrative to furnish competency; thus far the means of procuring domestic comfort at least were in possession. But he was inordinately selfish; his wife incapacitated, from infirmity of health.

During the first ten years and a half of her married life she had eleven pregnancies, seven of which were abortions, at periods varying from the fourth to the end of the eighth month: all were still births. The remaining four terminated at the full term in the birth of healthy-looking children, all of whom had purulent ophthalmia, scaly eruptions on the skin, soreness of the mouth and anus, and died, shrivelled and emaciated, before the age of six months—all under precisely similar circumstances. This account is given by the nurse who attended her on all these occasions, and confirmed by that of both husband and wife themselves. At the age of

twenty-eight, spirit-broken and distracted, she attempted to end her life by drowning, but was opportunely rescued. The infant, of which she was then five months pregnant, was born at the full term of gestation, apparently in health and well developed. But the latent evil began to make itself manifest in the second week, presenting characters every way similar to those which had appeared in the previous cases. The treatment adopted was in a measure successful. She was again delivered, the thirteenth time, at the age of thirty; the infant, a female, together with the preceding child, its brother, have been under my care, from time to time, from then until now, a period of several years. I had not an opportunity of witnessing the boy's case in its earliest stages, but am assured that the incipient symptoms which he exhibited were in every respect similar to those of the last infant, which were briefly as follows:—

At the age of ten or twelve days, the skin was in several places crowded with an eruption of papular blotches of characteristic tint; the mouth and throat were aphthous; the nose was obstructed, the anus inflamed. The treatment, consisting in the administration of hydr. cum cretâ, was for a time satisfactory, and the patient appeared in a healthy condition. During the teething period, and three or four times more in the course of the first two years of life, relapses took place, which were relieved in like manner. After this date I lost sight of the child for upwards of twelve months, when she was again brought, having the forehead, face, scalp, neck, trunk of the body, and limbs covered with eruptions of the flat tubercular type, arranged in serpiginous groups. She is otherwise a fine child, of precocious intellect. The complaint proved, on this occasion, extremely intractable. The symptoms were

now and then mitigated by treatment, but did not disappear; and, with the exception of two interruptions of seven or eight weeks each, when other medication was unsuccessfully tried, she has been under my care ever since. The complaint has now, at the age of five years, almost entirely disappeared; the successful remedies were mercurial inunction practised on the abdomen and thighs, and the internal use of sulphur. It should be mentioned that these two remedies, with a multitude of others, had been before freely tried separately, but without beneficial result.

In the boy's case the symptoms subsided with less trouble, and his physical health now remains good; but he seems to have the sad alternative—if alternative it may be considered—of disordered intellect.

Thirteen months after the birth of the girl, the mother was the fourteenth time delivered, in the third month of pregnancy. This accouchement was attended with profuse flooding, which continued in gradually-diminishing quantity for more than a month, and was then succeeded by a sanio-purulent excretion, very offensive in smell, in still greater abundance. The discharge in this form was not a new phenomenon, but it had not previously been offensive. After the thirteenth puerperal period, the cervix uteri was occupied by soft, projecting tufts of granulations of warty appearance, which were treated with caustic, and the patient seemed to improve, but did not get strong. The treatment was not continued. At the period in question, namely, after the last abortion, the whole vaginal cavity was occupied by a large, soft, tufted mass, proceeding from the lower section of the uterus, from which fragments were easily detached during examination—true cauliflower cancer. These were found,

when microscopically examined by my friend Dr. Renaud, a well-known authority on this subject, to consist of soft cancerous matter. She died, from the effects of exhausting discharges, at the age of thirty-two.

On *post-mortem* examination, no organic lesion was found in either the chest or abdomen. There was no effusion. The mucous lining of the uterus was in a state of granular inflammation, the organ being elongated; the cauliflower growth attached to the outer aspect of the cervix, and very large during life, had shrunk to the size of a walnut.

The husband was afflicted with sycosis of a most troublesome character: this had existed ever since he was a young man. He had a profuse growth of hair on the face, which was allowed, for the purpose of concealing the eruption, to extend to its utmost limits, except on the upper lip and point of the chin. The sides of the maxillæ and cheeks, covered with hair, were studded with the tubercles of sycosis, which had often been pronounced by medical men to be of syphilitic origin; but this he did not believe, for he had not at any time, according to his own account at that period, suffered from a venereal affection, although he confessed that his habits had been of a very dissolute kind.

While his daughter was still under treatment, the father, having, as he stated, frequently reflected upon my remarks respecting the venereal nature of the symptoms above narrated, came to show me an eruption which he had on the glans penis, which he said had reappeared at certain seasons ever since marriage, and which he had begun to consider to be of some importance. The eruption alluded to was in the form of small blotches of dark-coloured erythema, varying in size from a line to a quarter

of an inch in diameter, and slightly elevated above the surrounding surface. He remembered that on one occasion before marriage he had a small sore within the urethral orifice, which, however, got quite well without either internal or external treatment. The sore alluded to had left a white cicatrix, to which he directed my attention, situated between the folds of the labial commissure of the orifice at its upper part. This satisfied all previous doubts as to the nature of both his own eruptive disease and those inflictions which had been entailed upon his wife and offspring. By means of an active course of mercurial treatment, not only were the blotches removed, but also the sycotic tubercles which had for so many years infested his face. Several relapses have taken place, due, most likely, to the morbid habit to which the skin had been accustomed for so long a time; but the resumption of the remedy was on each occasion sufficient to dispel them, and at length they ceased to reappear.

The preceding case is not introduced here with the intention of classing, without reserve, the phenomena which have been mentioned with those of syphilis, or of identifying sycosis and lues venerea as diseases invariably of the same nature as regards their origin. I only state the facts as they occurred, leaving the reader to form his own opinion. Nor do I insist that the malignant affection under which the woman lost her life was owing to the same specific taint continued from her husband. It may be stated, however, that I have since become acquainted with the history of the wife's family, from which it appears that no similar affection had previously occurred amongst them. This subject has been already alluded to in the preceding chapter.

The boy has since died of cerebral disease.

Case XXX.

URETHRAL STRICTURE OF LONG DURATION, WITH HERPES SYPHILITICUS, IN THE HUSBAND; UTERINE SYPHILIS AND STERILITY IN THE WIFE.

In the year 1838, a gentleman, twenty-eight years of age, residing at a distance, consulted me on account of a stricture of the urethra, which had troubled him from three to four years. About four years previously, and two years and a half before marriage, he contracted a gonorrhœa, for which he took medicine and used an injection, and was cured in the space of two months. He never had a true venereal sore externally, nor any other affection of this nature besides the gonorrhœa named.

Symptoms of stricture commenced from six to twelve months after those of the complaint had disappeared, but it did not for a length of time become decidedly troublesome. A few months after marriage he had an attack of urethral catarrh, with ardor urinæ and great contraction of the passage at a point near its membranous portion; there was also an excoriated and patchy state of the prepuce and glans. No cause of a specific nature more recent than that above mentioned could have operated in developing these symptoms, so that they were not at that time considered to be venereal. After his recovery, which took place under the use of simple means, rest, and abstinence, he continued to be troubled with the stricture; and at intervals of a few months—sometimes five or six—he had an attack of herpes præputialis. At a later period an herpetic eruption broke out in another part of his body, which soon subsided under the use, for a few days, of a liquid diet and saline ape-

rients. This form of disease returned, however, at short intervals, always on the same part of the body, for several years, during which the herpes præputialis was not seen. The stricture, however, spite of the use of bougies and certain applications by means of Lallemand's instrument, continued to get worse. For several years I represented to him the probability of his symptoms being of a venereal nature, and urged the necessity of mercurialization; but my advice was not adopted until 1850.

A few months after this gentleman's recovery from the illness for which I first saw him, his wife consulted me in consequence of great heat and inflammation of the vagina, attended with a disagreeable discharge, and irritable bladder. Within the vulva were situated a number of warty vegetations, which were highly irritable and extremely painful. These troubles in a great measure went away after a prolonged course of treatment; but she was not until very recently restored to a comfortable state of health. In 1848 and 1849 I treated her for uterine disease of a kind which by that time I had learned to recognise as of a specific nature. On this occasion I represented to the husband (who about ten years before had gravely asked if I did not think that his wife's deranged health had produced the disorder in him) what I considered the nature and origin of his wife's complaint to be: the accuracy of this opinion was confirmed by the results procured by a course of mercurial treatment. This lady was never pregnant.

These patients continue to this date (January, 1857) perfectly well.

Case XXXI.

LUES VENEREA OF ELEVEN YEARS' DURATION; UTERINE SYPHILIS.

A lady of highly respectable family, whom I have known since her childhood, was married, at the age of twenty-five years, to a gentleman occupying a respectable social position. I attended her in her first confinement, January 2, 18—. The child was remarkably plump and healthy, and continued for some time to thrive. On the forty-fourth day my attention was directed to a dark-looking patch on the ala nasi, at its junction with the upper lip. At first this was believed to have been caused by too firm pressure of the nurse's finger in the process of washing. The day after a similar blotch was noticed on the side of the left heel, and a few more on the breech. Two or three days later a considerable number of blotches made their appearance, and very soon spread over the entire surface of the nates and lower extremities. That which was first noticed on the nose remained the only one on the features for more than a fortnight. On the sixty-fifth day the whole face was faintly mottled; so faintly, however, that when the patient was in a quiescent state they could not be seen; but when crying, the marborescent aspect became again evident. Two days after this peculiar aspect of the skin was first noticed, the face was entirely covered with blotches of syphilitic roseola, the Schneiderian membrane was thickened and inflamed, the nostrils were filled with a viscid mucus, the nasal breathing was obstructed and noisy, the throat swollen, the voice husky, and the child

was very feverish and fretful. At this period the anus also, from the presence of an irritating discharge which thence issued, was surrounded by a disc of papular erythema, extending, apparently, within the bowel.

The husband waited upon me at my request. He stated that he had had chancre and inguinal abscess somewhat more than eleven years previously, at the age of twenty, and which were subdued by mild remedies: he was not salivated during the treatment. He had not had a primary venereal affection in any form since. Three or four months after the primary affection had disappeared, he had a crop of secondary eruptions on the face, chest, and extremities, which soon disappeared, however, under the adoption of mild treatment. A similar attack came on twelve months later, and every spring since he has had eruptions of a like character, which have generally lasted one, two, or three months each time, and always disappeared under the use of iodu-retted sarsaparilla. He says he is aware that these eruptions were the result of an imperfect cure of the venereal affection in the first instance, but had been assured that they would produce no harm constitutionally. He showed me his hands, both which were sprinkled with patches of fissured psoriasis on the palmer surface, and with which he had been annoyed for several years past. There is not, perhaps, any symptom more decidedly indicative of constitutional syphilis than lesions of this last-named character.

The mother has a slight purulent leucorrhœa. The lower section of the uterus is in a state of inflammatory hypertrophy, the orifice being surrounded by a circle of vivid inflammatory redness.

The child was perfectly cured by mercurial inunction,

continued for several weeks. The wife and husband are both under treatment.

Further tidings of this patient are not at present in possession.

Case XXXII.

SYCOSIS IN THE HUSBAND; UTERINE DISEASE OF SYPHILITIC CHARACTER IN THE WIFE; FATAL SYPHILITIC DISEASE IN THE OFFSPRING.

G. is a spare sinewy figure, of light complexion, twenty-seven years of age, and has the face covered with tubercles of sycosis. The complaint is said to have commenced at twelve years of age, having been preceded by an attack of piles, followed by fistula, which underwent a spontaneous cure. From that time to the present, the eruption has never been absent, although a great variety of remedies has been tried. It is always aggravated in spring and autumn. At these seasons the tubercles occupy also, besides the face, the hard and soft palate, dorsum of the tongue, throat, and inside of the cheeks. His chest and back are covered with white cicatrices, showing the seat of former tubercles; but of late years they have ceased to infest these parts. His father, who died at the age of sixty-four, had a similar eruption on his face. Two of his father's brothers are still living, but neither they nor their families have any appearance of the complaint. He says it has been usual amongst the family to attribute the origin of this "scorbutic affection" to the delinquencies of his father, who pursued a gay and dissipated career in early life. The patient has five brothers older than he, all of whom are affected in

like manner. His only sister, who is his junior, has been three or four years married. She has escaped the disease altogether; but is in delicate health, and has never been pregnant. The mother of this family is quite healthy. The patient has been married five years.

His wife is thirty-two years of age, and has been six times pregnant. The first four pregnancies ended abortively: the first two at three months; the third at six months; the fourth at seven months; all still-births. The fifth was a successful pregnancy, the child being full-grown and apparently healthy; but at the age of two to three weeks it became covered with eruptions; its health gradually declined, and it died, with loss of voice, ulcerated mouth, obstructed nose, and great emaciation, at the age of seven months. The sixth pregnancy terminated at the full term, in the birth of a well-developed and healthy-looking child, January 5, 1851, who was brought to me on the thirty-ninth day (February 13). The skin was literally covered with copper-coloured, scaly patches of various dimensions; its lips were fissured, the inside of its mouth and throat excoriated, the eyelids inflamed, the nostrils angry and obstructed, and the voice subdued. The anus was angry and fissured, the skin lustreless, and the child, greatly emaciated, died February 26, at the age of fifty-two days.

The mother had an indurated and hypertrophied state of the lower section of the uterus, which was mottled and patched with blotches of aphthous excoriation.

Case XXXIII.

ECZEMA SYPHILITICUM, THE TAINT INHERITED; UTERINE SYPHILIS IN THE MOTHER.

K. F., aged thirty, married eight years, has had six pregnancies, of which the first was an abortion at three months; the second still-born at full term; the third and fourth were born alive at full term, but died, while under my auspices, at eight and nine months respectively, of venereal cachexy. The fifth was born May 2, 1846, and is still living. In infancy, and during the mother's puerperal term, this child had syphilitic cutaneous disease, which appeared to be perfectly cured by mercurial alteratives, when they were both discharged from the hospital list. It is stated, however, that soon after its dismissal, at the age of six weeks, the symptoms again broke forth, for which it was placed under treatment at a special hospital, whence its was discharged after some months, its complaint being considered cured, although the skin was not then free from eruptions. At present, at the age of five years, the suboccipital glands are enlarged, its skin is dry and scurfy, and its head and face are covered with impetiginous eczema. Her last child, born December 17, 1850, at the age of nine weeks came under my care, having numerous flat syphilitic tubercles on the face, breech, thighs, and abdomen.

The mother has never been free since marriage from puriform leucorrhœa, and has several times had flat tuberculous eruptions about the vulva like some of the same character which are now present. The uterus is in a state of inflammatory hypertrophy of specific aspect:

its surface being of a dark-red colour, glistening, mottled, and the circle of the orifice superficially ulcerated.

The husband, aged thirty, who is now (at the time of this report) under my care, says that he had a syphilitic affection before marriage in form of chancre and inguinal abscess, of which he was considered perfectly cured long before marriage, but of which he entertained some doubts. He was, during a year and a half, under treatment at a hospital. He now says that he was as bad when discharged from as before he entered the institution. He became, after this, a patient of another hospital during a period of three to four months, when a different plan of treatment was practised. He here took medicine which caused a slight salivation, and then began to mend. He believes, however, that the treatment was too early discontinued, as he has ever since been troubled with very distressing aching pains of the bones of the nose and head, and chafing in the flexure of the groin, with occasional blotches of herpes præputialis.

CHAPTER III.

ANALYSIS OF THE PRECEDING CASES.

UNTIL within a few years anterior to the present date, it was the prevailing belief among both British and Continental practitioners, that secondary syphilis, or lues venerea, as this form of disease has been heretofore denominated, was not communicable from person to person. The doctrine is that which was promulgated by Hunter, and is founded upon experiments of the following kind: "A man had been affected with venereal disease a long time, and had been several times salivated, but the disease still broke out anew. He was taken into St. George's Hospital, affected with a number of venereal sores; and before I put him under a mercurial course, I made the following experiment:—I took some of the matter from one of the sores upon the point of a lancet, and made three small wounds upon the back, where the skin was smooth and sound, deep enough to draw blood. I made a wound similar to the other three with a clean lancet, the four wounds making a quadrangle; but all the wounds healed up, and none of them ever appeared after." In another case, a man labouring under secondary syphilis was inoculated with matter from a chancre, and also with matter from his own sores. "The wounds impregnated with the matter from the chancres became chancres, but the others healed up."

Hunter appears to have entertained the belief also, according to the following quotation, that the product of a secondary venereal sore has ceased, at this epoch, to be venereal in its nature:—"When the matter (the venereal poison) has got into the constitution, it from thence produces many local effects on different parts of the body, which are in general a kind of inflammation, or at least an increased action occasioning a suppuration of its own kind; it is supposed that the matter produced in consequence of these inflammations, similar to the matter from a gonorrhœa or chancre, is also venereal and poisonous. This I believe till now has never been denied; and upon the first view of the subject, one would be inclined to suppose that it really should be venereal: for, first, the venereal matter is the cause; and, again, the same treatment cures both diseases; thus mercury cures both a chancre and a lues venerea; however, this is no decisive proof, as mercury cures many diseases besides the venereal. On the other hand, there are many strong reasons for believing that the matter is not venereal." It seems a strange perversion of pathological law to regard the consecutive phases of one and the same disease, capable of producing the same phenomena which immediately supervene upon a primary affection, as not belonging to the same category.

The same author is equally incredulous as to the infectious properties of the blood, the saliva, or the breast-milk of one labouring under secondary syphilitic disease, and doubts the possibility of its transmission to the fœtus in utero from a mother so infected, except by direct application of the same kind of matter which produced the disease in her. On the last-mentioned point he says: "It is also supposed, that a fœtus in the womb of a syphi-

litic mother may be infected and have the disease from her, as though it were naturally interwoven with it. This I should doubt very much, both from what may be observed of the secretions, and from finding that even the matter from such constitutional inflammation is not capable of producing the disease. However, one can conceive the bare possibility of a child being affected in the womb of a diseased mother, not indeed from the disease of the mother, but from a part of the same matter which contaminated the mother, and was absorbed by her."

His opinion on the subject of contamination through the medium of the breast is contained in the following extract:—"It has been supposed and asserted from observation, that ulcers in the mouths of children from a constitutional disease, which constitutional disease was supposed to be derived from the parent, produced the same disease upon the nipples of women who had been sucked by them, giving it, as it were, at the third hand; that is, the children were contaminated either by their mothers or fathers having the disease in form of a lues venerea (of which I have endeavoured to show the impossibility); the child was the second, and the nurse was the third. If, however, it were possible to contaminate once in this way, it would be possible to contaminate for ever."[1] The case which he adduces in support of this opinion—too well remembered, doubtless, to require transcription here—instead of supporting his argument, has, in my opinion, a contrary tendency. It has been shown by experiment, as will be presently stated, that not only does the matter of secondary sores produce, by inoculation, phenomena similar to those from which the matter

[1] Hunter *On the Lues Venerea*, 1786, p. 291 et seq.

was taken, but constitutional effects also, in every point resembling those which appear, after the usual interval, as the result of an uncured primary affection.

The failure of inoculation of secondary syphilitic matter to produce an immediate local effect, Hunter deemed sufficient to disprove its infectious nature altogether. This seems to me to be a refutation of his own teaching respecting the habitudes of the venereal poison, for he states that the average time required for the development of lues venerea, after the absorption of the poison, is six weeks, sometimes much longer; it would therefore be unreasonable to expect an immediate reaction upon the part where the matter was inserted, or even to look for it at all in that precise situation, as a necessary manifestation, since, becoming a disease of the blood, its deposition takes place, as to time, in accordance with laws peculiarly its own, and upon such parts as are most susceptible of being acted upon by it.

The results, therefore, which Hunter obtained, led him to the conclusion, that diseases apparently arising from secondary inoculation, whether through the saliva, the blood, the breast-milk, or any other medium, and regarded by previous observers as venereal, were, in reality, in their nature not so; that the sequelæ of syphilis were no longer, as such, to be considered syphilitic. This doctrine, spite of the multitude of daily accumulating facts tending to disprove its validity, was maintained for a series of years with a degree of sectarian waywardness to which it would be vain to seek a parallel. Thus we find Mr. S. Cooper, who, in his elaborate compilation, may be considered fairly to represent all or most authorities of credible acceptance up to his day, entertaining in 1830, forty-four years after the promulgation of

Hunter's theory, the same unaltered opinion. In his remarks upon Mr. Hey's cases of secondary inoculation he says:—"The late Mr. Hey, of Leeds, gave it as his opinion, that a man might communicate lues venerea after all the symptoms of the disease had been removed, and he was apparently in perfect health. This sentiment is not only repugnant to the authority of Mr. Hunter, but to common observation and all sound reasoning."[1] Mr. Cooper saw reasons for changing his belief on this subject, as stated in another edition of his work published eight years later.

Within the last few years, opinions have undergone a material change respecting the nature and habitudes of venereal affections. Practitioners of the present generation, taken as a body, if not better informed than those of the age immediately preceding, are at least better disciplined, more practically inquisitive, and consequently feel greater confidence in their own powers of discrimination. They are more carefully observant of facts as they present themselves, more willing to allow phenomena to represent what they really mean, more patient in inquiry into their history and the bearing of collateral circumstances, and less hasty in drawing conclusions with a view of adapting them to preconceived theories. I speak generally. The astonishing revelations of certain physiological and pathological mysteries beforetime

[1] *Dictionary of Practical Surgery*, 1830, p. 1210. It should be borne in mind, that Mr. Hey was not a compiler, but a man of more than ordinary talent, and of great practical experience. He was a careful observer of facts as they naturally presented themselves, and has left many valuable and lasting contributions to the science of medicine. The opinions which he expressed in the Paper from which the above quotation is made, were the result of forty-six years' observation: they should not, therefore, have been so lightly disposed of.

engulphed in obscurity, which have been effected by means of animal chemistry and the microscope, arising out of the labours of a few, have had the effect of awakening a spirit of inquiry generally, and sensible men now hesitate before they reject a theory, which a short time since would have been discarded because not popular. In illustration, I need only mention the advances which have been recently effected in urinary pathology by Prout, Bright, Golding Bird, Bence Jones, and others of this country, including a still greater number of our industrious continental neighbours. Thus, the subject relating to the varying properties of this fluid, both in health and disease, and upon which so much reliance was placed by physicians of former ages as a means of diagnosis, doubtless but little understood scientifically, was almost entirely neglected during the half century which preceded the commencement of Prout's inquiries. The importance of the subject is now, however, sufficiently known, though much, doubtless, remains unrevealed.

Syphilis, also, has had its interregnum of neglect. There is every reason to believe that this disease was well understood in all its phases and habitudes three hundred years since, and it is highly probable that the practice adopted from that period until towards the end of the last century was quite as effectual, if not more so, in freeing the system from its poisonous and lasting influence, than the plans more recently employed have proved to be. The Hunterian chancre, so called, was indicated by precisely the same attributes, and described with equal accuracy by De Hery in the sixteenth century, as it is now: there was nothing to add to this author's portrait of it; the indurated base of a primary venereal sore, its wavy, elevated, overhanging border of

peculiar tint, and the colour of its surface, being deemed by him to be pathognomonic of its specific nature. In describing what he considers to be the most certain indication of a venereal sore (signe plus certain en la vairolle) he says :—" Every rational practitioner will bear testimony, that the most certain symptom in all pustules and ulcers of a venereal nature, is a hardness about the root of the ulcer of such sort that, being carefully dissected, a quantity of gritty matter, white and calcareous, will be found in it. . . . The middle of the ulcer has a citrine colour, with a yellowish or reddish border, which presents inequalities as though indentated : the pain is of a smarting, piercing, and burning character. . . . Sometimes the said ulcers are sordid and purulent, throwing off a vitiated, corrupted secretion, sanguineous or sanious ; they are surrounded by inflammation, and, in the centre, are covered with a whitish sordes, commonly called chancre : most frequently they have a deep-seated induration, even when they participate of the indolent character ; and in proportion as this induration becomes extended, so does the sore become malignant, indolent, and difficult to cure, and the prognosis doubtful : the treatment therefore must be pursued with prudence and discretion."[1]

[1] In the antique French of his day, this author says :—" Tous practiciens methodiques tesmoigneront que le plus certain signe en toutes pustules et ulceres, est un dureté en la racine, de sorte que les ayant curieusement dissequées, on les trouvera facies d'une matière gipseuse et blanche . . . . . et lors se sentira une cuisson, et douleur pungitive et erodente, et auront lesditz ulceres une couleur citrine vers le milieu, et une bordure subflave, ou rougéatre, se monstrans au reste inégaulz, et comme dentelez. . . . . Aucunesfois lesdictz ulceres sont sordides, et purulents, causez d'un suc vitié et corrompu, sanguins, pituiteux, ou participants de tous les deux : et sont avec inflammation à l'environ, et

But De Hery and his contemporaries deemed primary syphilis as of trifling importance in comparison with the troubles which followed in cases where the constitutional treatment happened not to have been properly practised in the first instance. He divided the phenomena which distinguish the different stages of a venereal complaint into three classes: first, premonitory symptoms; second, consecutive symptoms, or those which serve to indicate the true nature of the disease; third, those which commonly supervene upon an affection inefficiently treated. The first class consists of ulcers on the penis, ardor urinæ, and bubos, which usually precede true syphilis, but which may, nevertheless, exist under a non-specific form. The

au dedans avec une sorditie ou blancheur, cōmunement appellée chancre: la plus souvent avec dureté assez profonde, mesmement quant elles participent plus de pituite: et d'autant qu'il-y-aura plus de ceste dureté, ilz seront plus malings, tardifz, et difficiles à curer, et en sera le prognostique plus douteux: au moyen de quoy foult adviser de les traicter prudemment, et avec discretion."—(*Méthode Curatoire*, Paris, 1552, pp. 29, 188, 195.) What kind of importance to assign to the fact above mentioned respecting the presence of a "matière gipseuse et blanche," found to occupy the base of indurated chancres, which De Hery had "curieusement dissequées," I do not pretend to know, not having had an opportunity of dissecting such a specimen of morbid anatomy. If the animalcular theory be tenable, as first suggested by Borelli (obs. 53), and since noticed by Bourguignon, Henl, Kircher, Müller, Donné, Vogel, Valentin, Wagner, and others, as being applicable to certain other purulent products as well as the venereal; and entertaining the supposition also that the pus-animalcule is possessed, in its embryonic state, of a calcareous envelope similar to that which Küchenmeister has shown to belong to other kinds of parasites of the human body, and which earthy coat the creature deposits in the tissues on making its migratory escape,—then might the phenomenon above mentioned be accounted for. I have not hitherto been able to meet with any other published record bearing directly on this pathological condition.

second class of symptoms, which are those of true syphilis, consists of pustules and ulcers, presenting themselves principally on the genital organs, on the breech, in the mouth and throat, on the head and forehead, and on the emunctory organs: the uterus, vagina, anus, and skin; falling of the hair, pains of the joints, and nodes on the bones. The third class, which he calls extraordinary symptoms, the result of improper or ineffective treatment, are persistent pains of the head, the arms, or the legs, with nodes and caries of the bones, virulent and phagedenic ulcers; fissures and tetters of the hands, feet, and other parts, and wasting of the solid parts of the body.[1] He knew that the primary sore would get well without mercury, or even without any treatment at all, as may be inferred from statements found in several parts of his work. In the case of a young man whose history is given at considerable length, the symptoms, consisting in rheumatism of the shoulders and limbs, with loss of hair and pustular eruptions of long standing and of frequent recurrence, in varying degrees of severity, had been preceded by virulent chancre and inguinal swellings (ulcère cacoeth et maling au mēbre viril); the patient had for a long time made use of the decoctions then in vogue, and many other medicines, which had no other curative effect than that of drying up the ulcer—(pour

[1] Les symptomes, ou accidēts cōmuns de ceste maladie sont plusieurs, desquelz les vns precedent, les autres suyuent, les autres suruiennent. Ceulx qui precedēt sont vlceres de diuers nature en la uerge, ardor d'urine, ou pissechaulde, bubons, ou poulains: lesquelz seront dictz preceder, pource que encor qu'ilz soyent equiuoques, et puissent aduenir, et non aduenir, sans, ou avec contagion d'icelle maladie, ont neantmoins (le plus souuent) accoustumé de les preceder, et seruir quasi comme d'auantcoureurs. Les autres que nous appellons suyuants, ou consequutifz sont pustules, et vlceres naissans par tout le corps prin-

la curation duquel vsa par lōg temps de la decoction accoustumée, auec plusieurs medicines, qui toutesfois ne l'auoyēt peu preseruer, qu'en la desiccation de l'vlcère). The symptoms, progress, and termination of the disease, the multitudinous forms it occasionally assumes, according to temperament and habit of body, and the fearful devastations sometimes resulting, are described with graphic minuteness, and the rules laid down for their management are commensurately ample and elaborate. His sovereign remedy is mercury, administered endermically by inunction and fumigation, a method far preferable to the modern practice of introducing it by the stomach. He gives formulæ for a great variety of other remedies, however, intended to meet all possible circumstances. A favourite article among these is guaiacum, one of the ingredients, perhaps the most active and valuable of them, contained in the compound decoction of sarsaparilla of the present day. The system of treatment recommended by this author obtained a preponderating preference during several succeeding generations, for we find Mauriceau adopting it with eminent success,

cipalement aux parties honteuses, au siège, à la bouche, à la gorge, à la teste, au front, et aux emunctoires. Pareillemēt cheute de poil communement dicte pelade, douleurs articulaires, souuent mobiles, aussi (mais peu souuent) tophes, ou nodositez.

Les derniers que nous appellons suruenants, ou extraordinaires, qui naissent apres les imparfaites, et non methodiques curatiōs (causes des recidiues) sont douleurs fixes de toute la teste, ou d'une partie d'icelle, des bras, des iambes, principalement avec nodositez, ou souuent sont les os cariez, et corrompuz, vlceres virulents, et phagedeniques communement dictz ambulatifz, scissures, ou dartres aux mains, piedz, et autres parties du corps, vice proueuant de chascune des concoctions auec marasmation, et amaigrissemēt d'icelluy, &c.—(*Méthode Curatoire*, pp. 175, 176.)

and it was preferred by Astruc two hundred years after the date of De Hery's work.

It seems singular that the doctrines and precepts of one whose accuracy of description, as applied to the primary phenomena, at least, of venereal affections, cannot but be acknowledged by every impartial reader, should have been so utterly discarded in their application to the secondary, and what he rightly deems their more important, stages. His opportunities for observation must have been sufficiently ample. From the scarcity of educated physicians in the earlier half of the sixteenth century, the malpractices of ignorant pretenders, the deplorable state of licentious degeneracy which formed a salient feature in the character of the period, and the frequency of military campaigns, when vice of the worst description is fostered unheeded, opportunities were likely to be abundant of witnessing syphilis in all its phases and under forms rarely met with in this day.

It is generally believed that syphilis, as we now see it, is a much milder disease than, according to annals handed down to us, it appears to have been formerly; and this amelioration is referred, on the one hand, to a tendency which it is thought the disease manifests to wear itself out; on the other, to the improved modes of treatment adopted in these later times. With regard to the last-named supposition, there appear to me reasons for doubting its correctness. That the disease is now less destructive in its *immediate* consequences, I believe; but this is very probably due to the earlier employment of remedial measures rather than to a more judicious selection of remedies, or than to a more skilful application of them. Hunter and his followers prided themselves upon their ability to cure the venereal disease by a much

shorter course of treatment than had previously been deemed necessary. A late eminent surgeon used to state in his lectures, that, if asked how soon he could cure a gonorrhœa, he would answer that he could not tell, for the complaint often proved intractable under the best-directed treatment; but as regarded syphilis, meaning chancre, he could state positively that, in the majority of instances, a cure could be effected in three weeks: that is, the chancre could be made to heal in that length of time, and so the poison was deemed to have been destroyed. One more eminent than he, now living, stated some years ago that, although the primary sore should be early healed, he never considered his patients secure from after consequences unless the treatment were continued two months at least. The same author has since confessed, doubtless judging from his own cases, that less than six months' treatment is not sufficient for securing immunity from secondary evils in all cases. Cazenave, a man of more extended experience in this branch of medicine than either of the preceding, believes that a patient affected with genuine syphilis cannot be considered as perfectly cured unless the remedies, with all the conditions requisite for their effective operation, be continued from eight to twelve months. This is returning to the practice adopted by the mediæval physicians, a knowledge of which they have bequeathed for our guidance.

The notion that the present modified character of syphilis, as compared with its rapidly destructive tendency of former days, represents a stage in its progress of natural decline, is, I think, extremely problematical. This idea was probably founded upon the belief, that syphilis was a new form of disease, having commenced at the time of the celebrated epidemic of 1494–97. There

exist abundant proofs, however, that it prevailed long before this period, and the physiognomical traits which it now bears, are probably not widely different from those which distinguished it centuries before, perhaps even in the patriarchal ages. The researches of the author last named leave no doubt on my mind respecting the antiquity of these affections.

That the venereal, like most other forms of disease, is liable to be influenced by external agencies, there appears no reasonable ground to question. Reference need only be made, for the sake of analogy, to the varying forms of constitutional disturbance which accompany rheumatism at certain seasons; to the different types which scarlatina has assumed at different epochs, having appeared, when first noticed by writers on this subject, in a very malignant form; then, as described by Sydenham, during the epidemic which prevailed between 1660 and 1670, in a shape so mild that its identity was doubted even by this celebrated author. Dr. Withering was wont to regard putrid sore throat occurring without eruptions, and that which accompanied the eruption of scarlatina as distinct diseases; but he afterwards became convinced that they were one and the same disease. In reference to syphilis, the epidemic of 1496–97 was possibly attributable to extraordinary meteorological influences, by which some of the symptoms of the disease became so exaggerated as to receive new names, although no more than synonymous with those by which it had beforetime been designated. Montesaurus, who wrote in 1498, entertains no doubt on this point; and he seems to have been well acquainted with the complaint long before. He expressly says:—"The Morbus Gallicus is not a new disease; but the symptoms previously mentioned by physicians, by the

names bothor, asaphati, and tusii, were precisely the same as those which were afterwards known as venereal abscesses, tetters, scaly eruptions, and porrigo, as many physicians are constrained to confess." He attributes their aggravation to certain remarkable and unusual atmospheric phenomena which occurred at the period of the epidemic (malas dispositiones anni 1496 et pro parte anni 1497 in quibus intensa caliditas tempestatis pluviosæ successit, alias putredines in corporibus humanis causavisse his temporibus).[1]

Another writer, who published an account of his experience within a year after the period when, according to the advocates of its transatlantic origin, the venereal disease first made its appearance in Europe, speaks of it as a familiar form of complaint, and cautions the sufferers against the mischievous practice of ignorant pretenders, and especially against barbers, coblers, smiths, and travelling mountebanks, who pretend to cure it by means of external remedies alone."[2]

Michael Scot, a physician of eminence, native of Balwirie, in Fifeshire, who died in 1293, has the following significant words:—"Females are liable to assume an unhealthy complexion, and to have discharges. And when a woman, affected with such discharge, permits sexual congress, the genital organs of the other are easily infected, as is seen in young men, who, ignorant of the circumstance, often become diseased in these parts,

[1] Natalis Montesaurus, *De Morbo Gallico*, cap. 3, 1498.

[2] Ægrotantes dehortatur ne temere confidant istis imperitis, ut barbitonsoribus, sutoribus ac cerdonibus, et maximè viatoribus qui nostrarum carnium sunt carnifices . . . . . ne humorem facientem morbum evacuant, sed solum cum localibus (ne ipse fallor cum emplastris aut unguentis mercurialibus), has passiones curare volunt.—Coradinus Gilinus, 1497.

sometimes with leprous disorders. We must know, also, that should this discharge exist at the time when conception takes place, the child conceived will be more or less diseased; and at such time the man ought to abstain from, and the woman, from her knowledge of the fact, should resist, such contact."[1] This statement, as

[1] Efficiuntur fœminæ lividæ et reumaticæ. Si vero mulier fluxum patiatur, et vir eam cognoscat, facilè sibi virga vitiatur, ut patet in adolescentulis, qui hoc ignorantes vitiantur quandoque virgâ, quandoque leprâ. Sciendum est, quod si erat fluxus, quando erat facta conceptio, creatura concipitur vitiata in plus aut minus; et tunc vir se debet abstinere a coitu, et mulier debet ei resistere cum sagacitate.—(*De Procreatione Hominis Physionomia*, Operis 1277, cap. 6.) It may be remarked in passing, that the preceding observation affords pretty strong testimony as to the existence of syphilis long before the date when it is said by a multitude of authorities to have been imported as a new form of disease from the Western World by the followers of Columbus. Further evidence in support of this opinion may be found in the works of Guillaume de Salicet and of his pupil, Lanfranc, whose treatise (*Parva Cyrurgia Magistri*) is dated 1476, twenty years before the return of Columbus. Other proofs of a like tendency have been collected by Cazenave (*Traité des Syphilides*), which leave no doubt on the subject of its antiquity.

The idea of the modern origin of syphilis appears to owe its existence to an idle conjecture of a man of little learning, and, according to Sprengel, of mean reputation as an author. This was one Leonard Schmauss, of Strasbourg, whose work is dated 1518, and quoted by Luisini (Aphrodisiacus, *Seu de Lue Venerea*, in fol., Lugd., 1728, p. 383). His argument is based on the assumption that Nature has provided indigenous remedies of specific virtues for the relief of all endemic diseases; and as guaiacum is a native of the West Indies, the venereal disease, which he believes this drug has the power of curing, must consequently have had its origin in that quarter of the globe. The opinion, ridiculous as it may appear, was adopted by the celebrated historian, Guicciardini, whose reputation was sufficient to procure its ready acceptance by subsequent writers. On the value of this theory, Sprengel remarks:—"Les preuves paraissent reposer uniquement sur l'hypothèse que la nature a toujours accordé aux pays dans lesquelles

Cazenave has justly observed, implies not only the theory of virulent gonorrhœa, but also the doctrine of hereditary transmission.

Almost every writer on this subject, from the period last quoted to the days of the industrious Astruc, has regarded the poison of syphilis in its secondary form as being capable of producing its characteristic effects by transplantation from one person to another, and by every possible mode of contact. Hunter, as was already intimated, entertained other views on this particular point; which views, all but universally adopted, have had the

règnent des maladies endemiques des remèdes doués de vertus spécifiques contre ces affections. Or, comme c'est principalement des Indes occidentales qu'on tire le gaïac, l'Amérique doit être aussi, suivant lui, la patrie du mal vénérien. La même hypothèse induisit en erreur l'historien Guichardin (*Histoire d'Italie*, 4to, Venise, 1610, liv. ii. p. 69), aussi qu'un foule d'écrivans subsequens, dont le nombre ne peut donner à la chose un plus grand degré de véracité, puisqu'ils n'apportent pas de preuves plus valables."—(Sprengel, vol. ii. p. 500.) The same writer goes on to remark upon the improbability of the venereal disease having arisen among a people so free from moral corruption as were the Americans at this period, and calumny alone could have attributed to them the vices which essentially spring from luxury. All writers worthy of credence bear testimony to the natural simplicity of the habits and modes of life of the early Americans. Some writers, who ranked themselves among the believers in the importation of the venereal disease from the West Indies, endeavoured to attribute its origin to a peculiar constitution of the atmosphere and to the indigence of the people; others to an alleged uncontrollable lasciviousness of the women. Sprengel says the latter account was the invention of Americ Vespuce (in *Ramusio*, vol. i. fol. 131); this opinion was repeated by Herrera (liv. viii. p. 284), and Girtanner made it serve for the establishment of his theory of the history of syphilis.

It is extremely probable that the existence of syphilis dates from as early a period as that of any disease of which we possess authentic records. The reader will find abundant evidence in support of this view of the question in Cazenave's learned work already referred to.

effect of satisfying men's minds upon one of the most abstruse and important subjects of pathology so completely, that further inquiry was deemed unnecessary: indeed, to question the validity of the Hunterian theory has been looked upon as absolutely iniquitous. It is not difficult to understand, however, why a genius like that of Hunter should have commanded a devotion so extensive and lasting. The estimation in which he was and is deservedly held as medical philosopher, like Guicciardini as historian, rendered his doctrines and precepts unhesitatingly accepted as infallible on all subjects.

The cases detailed in the preceding chapter appear to sanction the following propositions:—

1st. That the venereal poison, once introduced into the human body, into the circulation—whether by a chancre with indurated base, the so-called Hunterian chancre, or by a simple ulcer without induration, or by a mere abrasion—is liable to remain in the system for an indefinite period; and although there be no outward sign to indicate its presence, that it is nevertheless further liable, under favouring circumstances, to reappear and develop itself in various forms of secondary phenomena, known as Lues Venerea.

2nd. That lues venerea, whether latent or manifest, is capable of being communicated from person to person; and that the poison thus received by one at "second-hand" may be thence conveyed to a third, from the third to a fourth, and probably much further.

3rd. That the mode of contamination is commonly through the medium of the genital organs; but, as a disease of the blood, it may be conveyed through any other channel by which certain of the secretions, or even the blood of an infected person, are admitted into

the circulating current of another; as by the mouth, the nipple, an abraded surface, by vaccination, or through the current of maternal blood destined to nourish the child in the womb.

4th. That a woman who has been thus infected, although no visible sign of her actual condition be manifest on the outer surface of the body, yet does she, in perhaps nine cases out of ten, bear specific evidence of its presence in her own person; and this evidence is to be found precisely in the part where a knowledge of the laws of organic function would lead one to look for it. The establishment of this fact leads inferentially to the suspicion, that the genital secretions in man may continue to be charged with poisonous matter for a long time after the disease itself appears to have been cured. The extreme susceptibility to excoriation of the glans and præputium penis which is generally noticed in tainted persons, and which in itself constitutes a suspicious symptom, materially strengthens this supposition.

I shall proceed briefly to examine the preceding propositions in the order of their arrangement.

I. DURATION OF LUES VENEREA.

At what period of time after the first reception of the syphilitic poison into the circulating current the system may be considered capable of being again free from its influence, is a question extremely difficult to solve, and one which will probably remain long undetermined. While some have asserted that the disease exhibits a tendency to wear itself out without any remedial interference, others believe that without well-directed and long-continued medication, it is liable to remain in a

latent state, capable of resuscitation, for an indefinite period. This was the opinion of Astruc. He states that he has ascertained from observation that syphilis, after having been apparently cured, will sometimes remain hidden in the blood for many years, without producing any manifest influence of a noxious character upon the health, and affording no indications whatever of its presence; but that, from any accidental cause, the health becoming deranged, and the components of the blood disturbed, although no fresh infection have been contracted, the latent poison starts spontaneously into active existence, quickly producing a train of the severest symptoms, which become a confirmed lues venerea.[1]

However widely the notions now generally entertained on the present subject may differ from this doctrine, there is nothing in it which should appear more surprising or strange than are the irregularities observed in the phenomena of hydrophobia and some other still more familiar affections. The average term of incubation of the hydrophobic poison, according to Villermé and Trolliet, is about thirty days; it has been known, however, to produce its usual train of symptoms in a much shorter time, as in twenty, ten, five days, and even, according to some authors (Mead, Pouteau), in less than one day after the inoculation. Astruc mentions a case in which the symptoms set in on the third day. On the other hand, Fothergill and Mosely adduce instances of the disease

[1] "Jam dudum observatione compertum est, 1°, Virus Venereum cùm profligatum creditur, clam aliquando latere ad multos annos in ipso sanguine, sine ullâ ægrotantis noxâ, quæ manifesta sit, atque adeo sine ullo sui indicio: 2do, At verò, ubi primum ex accidente sanguinis crasis vitio pervertitur, quamquam virus nullum de novo accedat, hydro instar sponte reviviscere, celerique progressu gravissima, symptomata inferre, unde lues confirmata."—(Lib. ii. cap. 5.)

having set in four months after the bite; Haguenot (quoted by Portal), in five months; Dr. J. Vaughan, in nine months; Mead has one occurring at the end of eleven months; Nourse, one after nineteen months; and Lentilius gives the particulars of one which occurred after the lapse of three years. The late Dr. Bardsley of Manchester recorded the particulars of a case which developed itself twelve years after the reception of the poison;[1] and Sauvage[2] mentions the case of a merchant of Montpellier who died ten years after having been bitten, with all the symptoms of hydrophobia, although his brother, wounded at the same time and by the same dog, died on the fortieth day after the reception of the injury.[3] Guicuerius, Salmuth, and Schmidt record cases which supervened eighteen and twenty years after the infliction of the wound; and Dodonæus has one which happened after an interval of thirty years.[4]

In scrofulous affections, a class of diseases very nearly allied to those of syphilis in many particulars, and perhaps of the same kindred, the like variation prevails. The taint, derived hereditarily, may manifest no trace of its existence during infancy or childhood; its development may be deferred until the period of youth, of middle age, or to the latter stages of life. It is known that even a whole generation, the offspring of scrofulous parents, may escape its ravages altogether; but the taint is not therefore extinguished; it may break out afresh in the next progeny with all its characteristic virulence. Neither does it attack the same parts, or make its ap-

[1] *Memoirs of the Lit. and Phil. Soc. of Manchester*, vol. iv. part ii. p. 431.

[2] *Dissert.*, p. 11.

[3] Villermé et Trolliet, *Dict. des Sc. Med.*

[4] *Obs. Med.*, cap. 12.

pearance at corresponding ages in different individuals, although members of the same family. Instead of glandular enlargements, disease of the eyes, white swellings of the joints, and certain disturbances of less importance, it may attack the brain, the liver, the lungs, and other viscera of the great cavities, sometimes appearing in the shape of burrowing abscesses, or of destructive tuberculosis of the vital organs.

The same remarks will apply to insanity and some other diseases, especially those of a malignant nature, some forms of which, happening in individuals who could not be ascertained, upon careful inquiry, to have derived the tendency hereditarily, have so immediately ensued upon syphilis, that the one seemed to be merely a continuation of the other. Instances of this species of degeneration are seen in Cases III., XXVIII., and XXIX. A number of cases of similar character have occurred to me. "It is perhaps one of the most fatal errors in practice," says Portal, "to refuse to admit of the existence of scrofulous, venereal, and scorbutic diseases, except when they affect the parts where we are accustomed to see them break out."[1]

Several instances confirmatory of these opinions will be found among the preceding cases. One of a remarkable kind is Case XIV. The woman had primary syphilis soon after marriage, at the age of seventeen. The complaint was considered cured; although she occasionally experienced, for two or three years afterwards, attacks of sore throat, cutaneous eruptions, and a tender state of the vulva, and was never free from purulent leucorrhœa. She was never pregnant during the lifetime of that hus-

[1] On the Nature and Treatment of some Hereditary Diseases.—See *Medical Journal*, vol. xxi. p. 251.

band, who died twelve years after their union. During her widowhood her general health, which had been somewhat delicate, though not in a state to disable her from pursuing her ordinary occupation, became manifestly improved. Her second husband was a strong, healthy man, and it could not be made to appear, upon minute inquiry, that he had ever had a venereal affection. At the age of thirty-two, nearly two years after her second, and fifteen from the date of her first marriage, when five and a half months advanced in her first pregnancy, she requested my assistance for symptoms which threatened to end in abortion. The diseased state about the lower section of the uterus, as already recorded, and my expressed suspicion of its specific character, elicited the recital of her history, which was given in so straightforward and ungarbled a manner as to leave no impression of doubt as to its correctness. The treatment adopted succeeded in relieving the urgent symptoms, and a remedial course was prescribed having reference to the nature of the supposed latent malady; but this was not carried out. The real nature of the case, however, was elucidated by the occurrences which ensued; the child, who appeared healthy at birth, having died under decided venereal symptoms. It may appear strange, doubtless, but perfectly accordant with what is frequently observed to happen in animals lower in the scale of creation, that this child bore a striking resemblance to the mother's first husband. It may also be mentioned in passing, that this woman's second husband is now (September, 1850) confined in a lunatic asylum. Lunacy has not been previously known in his family.

Case II. is also one in point. My treatment adopted in its earlier stages—whether less energetic than that

employed by other practitioners I know not—was evidently defective; but it was the plan which was at that time in vogue. And although the patient had suffered repeated relapses, she appeared to be perfectly free from all taint, with the exception of purulent leucorrhœa, for three whole years previous to her last confinement. At the end of six years, however, from the date of the first appearance of secondary symptoms, the morbid poison was still active within her; the child having died from the effects of the transmitted taint, and the uterus of the mother having been found impressed with characteristic disease, even at this distance of time.

The taint in Case III. endured fourteen years, and terminated in malignant disease of the womb, which destroyed life at the age of forty-two. The offspring of eleven pregnancies were sacrificed to the malady in this one instance. I treated Case IV. eight years after the invasion of primary symptoms; Case XII., thirteen years after the first infliction, which appears to have been derived from one having the disease in a secondary form; Case XIII. about eight years, Case XV. seven years, from the date of the primary inoculation; and Case XXI. was of eight years' duration. In none of these had a fresh inoculation been received, but the poison seemed to remain as actively noxious at the respective epochs named as it had been at any time during its existence. In the preceding six cases, not fewer than forty-six children were sacrificed to this devastating malady.

Case XXII. is that of a midwife who contracted disease, while in pursuance of her ordinary calling, through a wound in the finger. Her patient, at the full term of her first pregnancy, had suffered from primary syphilis during the first part of the period, but was said to have

been cured. The vagina was, however, studded with warts at the time of delivery. The midwife, who was for several years attended by a practitioner of high respectability, had secondary syphilis in a most severe form, which, though actively treated, relapsed yearly, and reappeared in the spring of 1850, nine years after the inoculation, in characteristic form.

I know not if the reader may consider the symptoms in Case XXIV. as of syphilitic character. The patient, twenty-three years of age, had undoubted syphilitic symptoms in infancy, imbibed from her mother, who had gonorrhœa at the time of her delivery. The complaint was mitigated by treatment, but certainly not cured, as she experienced repeated outbreaks of symptoms afterwards of the same description as those which were first witnessed, though in a modified form, throughout infancy and childhood, and until the present date. The tubercular form of eruption on the knees, the fissured lips and dark-coloured patchy state of the fauces, the diseased condition of the uterus, and infecundity, together with the improvement effected by means of mercurial remedies, all lead to the suspicion that the syphilitic taint still existed.

One of the individuals implicated in Case XXV. had syphilitic disease ten years after its reception by labial contact from an infant congenitally infected. Judging from external appearance, apart from any knowledge of preceding circumstances, its specific nature might have been doubted; but her history was clear and satisfactory, and the appearance of the disease in her child, the immunity of her husband, and the complete disappearance of the disease by means of mercury, placed the matter beyond question.

The specific nature of the symptoms in Case XXVI. may also, at first sight, appear doubtful: in my belief it is not so. The patient suffered from a well-developed secondary syphilitic affection, derived from his maternal nurse, in infancy; the symptoms, in an altered form, reappeared frequently afterwards during childhood and boyhood until his sixteenth year, when the vesicular-tubercular eruption, denominated chicken pox, took place, but which eruption was very different from chicken pox as seen in its simple form. There can be little doubt also as to the specific nature of the disease in the husband and wife, as well as in their offspring, recorded in Case XXVII., nine years after the invasion of the primary affection in the husband. The disease in the remaining cases was of shorter duration, but only because they were more efficiently treated at an earlier period.

Cazenave records a case of tubercular syphilis occurring thirty-three years after a gonorrhœal affection; another, of the serpiginous variety, thirty-five years after the same form of disease, which had lasted only eight days; and a third of similar character forty-one years after the existence of a gonorrhœa, which had lasted a month. None of these patients were believed to have been infected a second time. If the cases recorded in the preceding pages should appear strange on account of their long duration, what is to be thought of the last-quoted examples? I confess that had I perused Cazenave's observations, unknowing from experience analogous instances, I should have doubted their genuineness.

II. INFECTIOUS PROPERTIES OF LUES VENEREA.

Most writers on this subject up to the latter third of the eighteenth century appear to have entertained no

doubt of the infectious properties of lues venerea. Hunter, after a laborious and long-continued series of investigations, was led to disbelieve the possibility of communicating a secondary infection at all, whether through the medium of inoculation, or by hereditary transmission. His theory has enlisted many adherents, amongst whom may be mentioned one of the most eminent syphilographers of the present day, M. Ricord.

Dr. Colles of Dublin, and Cazenave of Paris, men long in practice, and of enlarged experience, duly acknowledging the value of Hunter's contributions, have seen reason to differ with him in this particular. Many other practitioners of experience and celebrity, whose names will be familiar to the reader, have also recorded opinions consentaneous with the revived doctrine.

It is not my purpose to discuss, in this place, the relative merits of these two theories, my object being simply to contribute to the stock of knowledge already accumulated such facts as have presented themselves in the course of my experience, and such as will, doubtless, continue to present themselves hereafter. Neither do I deem it incumbent upon me to attempt an estimate of the various opinions from time to time recorded hereupon, as the present treatise is not intended to comprehend the history of these affections. The cases which I have recorded presented themselves unsought for, while in the prosecution of an inquiry having a very different purpose, and while I was yet but little acquainted with this particular branch of pathological study.

Among those who contributed to the advancement of this department of medicine in the present century, the name of the late Mr. Hey of Leeds deserves especial mention, as being the first who had the honesty and courage

to declare, in opposition to the prevailing doctrine, an adverse opinion. From the year 1770, the date of his first case, through a period of forty-six years, he was in the habit of seeing in his practice cases of secondary inoculation and hereditary transmission which led him to differ altogether from Hunter's theory. In 1816, at the solicitation of Mr. Pearson, he narrated a few cases in point in a paper read before the Medico-Chirurgical Society of London, and published in the seventh volume of their Transactions. I confess that had I seen this very interesting document half a dozen years earlier than I did, it would have induced me to pay more attention to the subject, and to have preserved the histories of many cases which are now too imperfectly remembered to be made available in an essay of this kind.

The last case in the group described by Mr. Hey was that of a lady whose husband called upon him in great distress of mind, stating that his wife was labouring under syphilitic symptoms, which he believed that he himself must have been the means of communicating. He had suffered from syphilis before marriage, but believed himself to have been perfectly cured, and had not experienced any symptom of the complaint since. However, the complaint under which his wife was then labouring was so similar to that which he had formerly experienced, that he felt no doubt it had been contracted from him. "I visited this lady," says Mr. Hey, "and found her labouring under a confirmed lues. The labia pudendi and verge of the anus were beset with irregular fissures and condylomata; a discharge of puriform matter also issued from the vagina. She was advanced to the seventh month of her first pregnancy; but before delivery at the end of the ninth month, the diseased parts were healed,

as I had pursued a mercurial course with as much vigour as seemed prudent in her condition.

"The child was at its full growth, and had no other morbid appearance than an universal desquamation of the cuticle. It continued well about a month, and then began to grow extremely fretful, though its evacuations indicated no disease of the primæ viæ. At the same time it began to have a hoarse, squeaking voice, and soon exhibited a number of copper-coloured blotches on the skin. A scaly eruption also appeared upon the chin; and the anus showed an unnatural redness. I had no hesitation respecting the treatment, but immediately commenced the mercurial course described in the first case above mentioned (small doses of hydr. submur.). The event was agreeable to my wishes, and the child got well.

"Soon after the restoration of the child's health, the family removed to another part of the country. Within half a year after their departure from Leeds, I received a letter from the lady informing me that the child's complaint had returned, and requesting a prescription for the medicines which had before effected so speedy a cure. I complied with her request, and have not since heard from them.

"It may justly excite surprise (adds Mr. Hey in conclusion) that the gentleman whose case I have last related, should have remained free from the disease, when his wife was in the condition which I have described. I confess myself unable to account for this circumstance, without calling in the aid of a supposition which wants probability." Mr. H. does not explain what this supposition was.

Cases are recorded confirmatory of the preceding by Dr. Colles in his work on the venereal disease published

in 1837, and also in Cazenave's work, published in 1843. In these volumes I find no mention made of Mr. Hey's cases, although the omission is doubtless not attributable to any wilful neglect on their part. Medical literature is now so very voluminous, and so imperfectly indicated, that occasional omissions are liable everywhere to occur. Dr. Colles has more recently communicated the results of additional experience on the subject,[1] all tending to confirm him in the belief that a man, to all appearance cured of the venereal disease, and marrying a female of unblemished character, may procreate an offspring which shall have the venereal disease, although neither he nor his wife may exhibit the slightest trace of the affection during the whole period of her pregnancy; and, moreover, that the product of several successive pregnancies may be in like manner tainted.

The transference of the infection in the submentioned cases was clearly effected by sexual congress. In Case I. the primary symptoms of syphilis had entirely disappeared in the patient first infected, a length of time before marriage; but a warty excrescence remained occupying the spot which had before been the seat of chancre. The man was entirely ignorant of the noxious character of this vegetation, and had been assured that it was harmless.

Case II. I deem also to have an important bearing on this subject. The husband had not the slightest indication of venereal symptoms at the time of, nor during the first few weeks after, marriage. That he was in this state capable of communicating the disease to his wife, appeared at the time doubtful, until a crop of venereal eruptions broke out on his skin ten or eleven weeks after

[1] See *Medical Gazette* for May, 1845.

marriage, and about nine months after the primary affection which he acknowledged to have experienced. This was accompanied with venereal sore throat, which, with the physiognomy of the eruptive disease, left not a doubt as to its specific nature.

In Case V. the indications were very similar to the preceding. I treated the husband for primary syphilis, and felt certain that he was cured long before he incurred the risk of infecting his wife. Moreover, the wife's symptoms were at no time of primary character. He himself suffered from secondary disease twelve months afterwards without any intermediary infection.

Cases IX. and XIX. were gonorrhœal affections. It is possible that in the first of these the complaint was communicated to the wife in its acute stage, although the arrival at a satisfactory knowledge respecting the early history of the case appeared not practicable, without endangering the harmony of the family, so the attempt was abandoned. It is certain, however, that neither of the parties in whom the disease first existed suffered from external sore beyond urethral inflammation; yet the supervening disease in the wife and offspring, which prevailed during several years afterwards, yielding at length only to the vigorous employment of anti-venereal remedies, was decidedly venereal in its outward character. In the second of these examples, the man was apparently cured, and remained so, as far as could be known by external appearances, two or three months before marriage. He experienced a relapse, however, about three months after marriage—without having received any fresh infection—which required rigid dietary restrictions and remedial interference for its cure. Of the specific nature of the symptoms which caused the

death of his child, and under which the wife suffered for at least twelve months, there cannot be a question.

Case XXI. was one of secondary inoculation, as the wife never experienced primary symptoms. Moreover, the disease stole upon her in the slow, insidious manner which is characteristic of secondary infection, and proved to be of a very destructive character, having eaten away a portion of the nose and the whole of the soft palate, and destroyed all her children. I thought for a time that the third child would have been spared; but it died emaciated, with abdominal dropsy and diarrhœa, at the age of eight months.

Case XXVII. appears also worthy of attention in reference to this subject. The husband had experienced a severe primary syphilis six years before marriage, attended, while the first symptoms still existed, with secondary eruptions. During the following few years, he had several relapses, which were pronounced by different medical men to be syphilitic; but for one or two years before marriage, no similar manifestations occurred, his only complaints being rheumatism of the shoulders and wrists, and occasional sore throat, which were not looked upon then as being of this nature. I myself did not suspect the existence of the taint in him until I saw it broadly manifest in his child. A more careful examination of both parties subsequently, served to reveal the true nature of the disease under which they suffered. The characteristic form of disease existing in the uterine system of the wife; the dark mottled throat, peculiar form of rheumatism, with an eruption of scattered tubercles on the back and face of the husband, convinced me, after his history had been fairly recounted, of the specific nature of their complaint. Their subsequent recovery

under an anti-venereal plan of treatment contributed some confirmation of the opinion entertained.

The following case also serves further to illustrate the question under consideration:—A young wife, in her twenty-fifth year, having been married upwards of four years, came under my notice in September, 1850, complaining of deranged general health. She had had five pregnancies, of which the first ended at seven and a half months, the second at three months, the third at seven and a half, the fourth at eight and a half, the fifth at eight and a quarter months, all still-born and in a state of decay. She was a member of a robust, unailing family, and had never been out of health, to her knowledge, before marriage; but since had constantly had yellow leucorrhœa, painful menstruation, with all the sympathetic disturbances usually attendant thereon. The whole body of the uterus, and especially its lower section, was enlarged and painful under pressure; the circle around the orifice was a suppurating surface extending apparently within the cervix; and external to this, which was bounded by a defined margin, the cervix was irregularly patched with aphthæ.

These appearances led me to suspect that the patient laboured under constitutional syphilis; and in delivering the necessary instructions in reference to treatment, I expressed a wish to see her husband. This request led her to guess at my object, and to infer also what my suspicions were respecting the nature of her case, as she began voluntarily to assure me that her husband possessed a strong and healthy constitution, that he belonged to a remarkably healthy family, and, moreover, that he was a man of the strictest moral integrity, and could not be suspected of infidelity. The husband, however, paid

me a visit shortly afterwards. He had never suffered from either venereal disease or gonorrhœa in the primary form. He frankly confessed, however, that he had incurred the risk of infection some months before marriage. A few weeks after the occurrence alluded to by him he had an ulcer on the lower lip near the right angle of the mouth: it was broad and deep, and the surrounding parts were extensively inflamed, hard, and painful. The sore proved refractory, and on being shown to a late eminent surgeon, Mr. R. Thorpe, it was pronounced venereal, and was prescribed for accordingly. When presented to my inspection, the peculiar aspect of the cicatrix, with its adjoining brown, wavy margin, together with a suspicious-looking scaly tubercle on the outside of the left commissure, with the assurance also that he had been frequently troubled with spots of that kind during several years past, induced me, unknowing at the time all the preceding details, to say that it looked extremely like the remains of an old venereal sore. The patient's medical attendant, dissatisfied with my opinion, took him to one deservedly celebrated for his knowledge in these complaints, who likewise pronounced it the remains of a venereal sore.

In this case the disease, undoubtedly imbibed by secondary inoculation, and in the same form continued, had existed at least five years: its virulence was no way weakened by time, as the constitution of the wife was greatly enfeebled, and the evil in her seemed to be increasing daily. Both patients were several months under my care; they appear to have recovered perfectly under the anti-venereal treatment adopted. Some time before it was thought prudent to discontinue the remedies, the wife expressed herself as feeling more comfortable and

in better health than she had been at any time since marriage.

This patient writes, in answer to my inquiries, that since 1850, up to this date (October 22, 1856), she has had four pregnancies at or near the full period, the children all born alive, and of whom the first died of convulsions, at the age of ten days; the second of bronchitis, at the age of fourteen weeks: the third and fourth are now living, and in robust health. In reference to herself, she adds:—"My own health is now good and fully established in every respect." The husband also is perfectly well.

III. MODES OF CONTAMINATION.

Astruc, in 1736, stated that lues venerea was communicable in the following manner: 1st, by sexual intercourse; 2nd, by lactation; 3rd, by contact of the lips; 4th, by sleeping for some nights in the same bed with one so infected, without congressional cohabitation, and especially if the diseased person have eruptions of the skin, or a free cutaneous transpiration; 5th, by application of the vaginal secretion of an infected woman to the skin of another person, as to the hand of the obstetrician, and especially if applied to an abraded surface.

There is no doubt that this affection is more frequently communicated by sexual congress than through any other medium. Should warty vegetations or abrasion of surface exist in certain parts of the genital organs at the time of intercourse, there need be no difficulty in accounting for supervening phenomena: even old strictures of the urethra, or chronic irritability of the canal near the neck of the bladder, or in any part of its extent, the residue of gonorrhœa of a remote date, eliminate, if not

always, yet under certain disordered states of the system, a noxious secretion capable of communicating a disorder very similar to, if not identical with, secondary syphilis.

But it frequently happens, as before stated, that persons apparently in robust health, in whom no external noticeable evidence whatever exists to indicate the presence of disease, but who have previously laboured under venereal affections, are capable of implanting the poison, latent and unseen in themselves, upon others of the opposite sex, in whom it assumes its characteristic type, runs through a certain series of stages, and progresses, if unchecked, to destruction of tissue, organic lesion, and to the production of hideous and irremediable deformities. I believe that all the secretions, from mucous surfaces at least, in one thus labouring under constitutional syphilis, are in a measure contaminated; and, if so, it is not unreasonable to infer that the infection may be conveyed through any of these media. Perhaps the secretions of the genital organs are usually more largely charged, under such circumstances, with the venereal poison, than those of any other organ, and that the product of the glans penis and urethra, as well as the whole secreting apparatus of the seminal organs, probably continue to emit it for an indefinite period after the disease has been apparently cured.

According to mediæval authorities, the supposition applies especially to the seminal fluid, which was thought to be thus rendered noxious and frequently unfruitful;[1] the morbid principle circulating in the blood having a

[1] . . . "seminali humore madeant, qui non sit veneni venerei immunis, ... corruptum semen quod ejaculatione emittitur, vulvæ, vaginæ, utero venere æstuantibus adhærent allita, unde luem variaque luis symptomata brevi illatura sunt."—Astruc, lib. ii. cap. i. p. 123. Paris, 1740.

constant tendency to concentrate itself upon the organs of generation, so that it would appear that the system is constantly being relieved of the poison as it is eliminated by these organs. This theory, fanciful as it may seem to be, is more than probably correct, and applicable to a certain extent in most cases. We sometimes see, for instance, a man, formerly affected with syphilis of which he was considered to have been perfectly cured, exhibit no appearance of secondary symptoms so long as he remains in robust health, and in the pursuit of an active employment; but so soon as the health, from any cause, becomes deranged, and certain functions suspended or perverted, the lurking malady presents itself in unmistakeable characters. Thus, a young man, twenty-five or twenty-six years of age, of active habits, strong and robust, had a virulent gonorrhœa five years ago, of which he was cured at least twelve months before marriage. He has never had chancre, nor any other attack of gonorrhœa since that now named. In 1850, while in pursuit of his occupation, a heavy weight fell on his foot, fracturing one of the metatarsal bones and otherwise contusing the limb. Ten or twelve weeks afterwards, having been confined to bed in the interim, I was called to see him—(he was under the care of another practitioner for his injury)—having a number of erythematous nodes on the skin of the arms, thighs, legs, face, and elsewhere, with several periosteal swellings of like appearance and extremely painful; he had also at the same time venereal ulceration of the throat, sclerotitis of the left eye, enlarged nucheal glands, and a glandular swelling in the groin of the same side as the injured limb. His general health had been remarkably good up to the date of his injury, and on making very careful

inquiry I was not able to attribute these symptoms to any antecedent cause except the gonorrhœal affection mentioned, and their development at this time to suspension and irregularity of the sexual function, consequent upon the local injury. His wife, who was barren, and who had been for some time in delicate health, also experienced an aggravation of symptoms under which she had long suffered, attributed by her to anxiety and watching, but which were doubtless determined by other causes. It was probably owing to the appearance of venereal symptoms in the singular manner now specified that De Hery and his contemporaries were induced to believe in the infectious properties of the atmosphere surrounding an individual thus diseased, a mode of contamination in which, not having witnessed a satisfactory instance of the kind, I do not at present believe, although I would not deny the possibility of it under certain conditions. We must acknowledge, at least, that an impure atmosphere may be injurious to those constantly inhaling it; that certain kinds of noxious effluvia are productive of certain forms of disease; and that in only a few diseases is the effluvium emanating from the suffering individual more sickly and offensive than that which is emitted from one labouring under syphilis in some of its forms.

Under what aspect soever appearing in the recipient, there can be no doubt that the affection may be communicated, by sexual congress, by one in whose system it is not externally visible. Mr. Wiseman has noticed the subject in his *Chirurgical Treatises*. It is to be regretted that his historical inquiries were not more extensively prosecuted. "A lusty young fellow," says this writer, "brought me to see his wife, which I did in company of Dr. Mapletoft. We found upon her face a great cluster

of round, crusty, venereal ulcers; yet not only her husband was seemingly sound, but her child also, who, being half a year old, appeared lusty and strong, and played merrily in the nurse's arms; but that day it died suddenly, nor could I impute that accident to any other cause but the forementioned infection."[1]

I must not omit to mention in this place, a theory of recent date respecting another mode of syphilitic contamination, or rather of the origin of syphilis without infectious implantation. This theory, which has found a strenuous supporter in an eminent author of the present day, is that which advocates the doctrine of an inherent poison, ready to develop itself into specific forms of disease upon sexual excitation, although both parties be free, at the time, from all disease of the kind. Mr. Skey says: "I may appear heterodox, but I believe that nineteen-twentieths of the sores in men are generated in their own constitution." A case given in illustration is that of a young gentleman, a medical student in London, whom he treated for "a most terrible gonorrhœa, with orchitis, ardor urinæ, &c." This affection had made its appearance after the seduction of a farmer's daughter during the catamenial crisis, she herself being quite free from disease. "She was perfectly healthy at the time," says the author,—"a pure virgin,—for I examined her also." Now, although I know from observation that mucous irritation of even a severe character may arise from congress under such circumstances, I very much question if a virulent gonorrhœa would be produced by it. But the question arises: Did he examine the girl before the seduction, or after? Not before, it may be presumed. If after, and she was at

[1] *Several Chirurgical Treatises*, book vii. p. 4, on Lues Venerea. Richard Wiseman, 1676.

that time found to be a pure virgin, then had she not been seduced, and therefore could not have been the means of inflicting injury upon his patient, she being healthy. Is it certain that the young man, a medical student living in London, had not incurred any other risk of contamination? Another illustrative case is that of "a patient in the upper walks of life, but of most dissipated habits." He had first simple excoriation, then high inflammation, afterwards "a sore that sloughed, and sloughed again. He was covered from head to foot with eruption." Yet were his wife and the woman who gave him this sore perfectly free from disease. "Now, where did he get this poison? I believed then, and I am sure of it now, that he made it in his own system."[1] It is possible that an oversight may have been committed in the investigation, or a clerical error may have occurred in the recording of these cases; for it is clear that, from the position of one, and the "most dissipated habits" of the other patient, neither could be beyond the pale of temptation at least.

The observations recorded in the preceding chapter—to which might be added a multitude of similar instances from other eminent authors,—Mauriceau, Astruc, Hey, Beattie, Colles, and others—fully accord with my later experience. To begin with an instance where some palpable evidence of the disease remained, Case I., already quoted, may be first mentioned. In this, a small warty vegetation occupied the situation of a former chancre; it was not surprising, therefore, that a similar form of disease should appear in the wife. That it was truly venereal was proved by the appearance of secondary symptoms in the infant, as well, also, as in the father at a later period. In Cases II., V., and VII., not a tangible

[1] Lectures by Mr. Skey, *Association Journal*, 1856, p. 211.

trace of disease existed in the husbands at the time when the disease was communicated to their wives; yet each, both husbands and wives, had secondary symptoms at variable periods afterwards, without any fresh infection.

Case XIII. is instructive on this point. I twice effected a cure of the wife's symptoms, and she was twice more infected by her husband, who exhibited, to minute observation, not a trace of disease. The cure was finally accomplished by the treatment of both parties, and the result was satisfactory, as may be seen on reference to their history.

Case XIX. was one of gonorrhœa. There was no evidence of disease in the husband at the time of marriage, nor for two to three months afterwards; and the secondary relapse which took place was not due, I am faithfully informed, to any new infection. I am equally convinced that the twofold contamination in Case XXI. was of a secondary character, and that no outward evidence of disease was present in the husband on either occasion.

Case XXVII. is that of a man of highly respectable character. I did not suspect the existence of a taint in him until evidences of it were found in his wife and offspring; and on mentioning my suspicions, he confessed that he had long entertained uneasy misgivings on the subject, and frankly avowed his reasons for it. The individual alluded to in Case XXX. is a gentleman of education and standing. I have attended him in illness at different times during thirteen years, his ailment having always been stricture of the urethra. Until recently he has continued to suffer from the same train of symptoms, but was unwilling to believe his complaint of a kind requiring mercurial treatment. He has at length submitted

to the use of the means frequently recommended, and is now perfectly well. His only primary venereal affection was a virulent gonorrhœa before marriage, about twenty years since. I treated his wife a dozen years ago for warts of the vagina, and latterly for disease of the uterus of specific appearance. She has never been pregnant.

Cases of the preceding description, of which a considerable number have fallen under my own notice, supported as they are by a mass of evidence contributed by men of unquestionable integrity and great experience, if not sufficient to warrant the conclusion, afford at least strong grounds for suspecting, that the syphilitic poison may continue to exist as a blood disease for an indefinite period after all external traces of its presence have disappeared from the system, and that the taint is frequently conveyed, under such circumstances, through the medium of the *sexual* organs.

Lues venerea may be transmitted through the medium of *lactation*, either from an infected nurse to her suckling, or *vice versa*. This mode of contamination was well understood and especially mentioned by authors three centuries ago. De Hery remarks, that among other modes of communicating secondary syphilis, irreparable mischief is inflicted by tainted nurses infecting their foster-children. A wet-nurse, being thus disordered, but bearing no external evidence of her disease, is engaged to assist the natural mother, whose supply of milk is insufficient for the requirements of her offspring. The seeds of the malady are thus transmitted from the strange nurse to the infant, from the infant to its mother, and from the mother to her husband.[1] Such kind of defile-

[1] "Ce que entre autres aduiēt es ieunes enfans, quād ilz tetēt nourrisses entachees de telle maladie. Qui est chose biē a noter pour les accidens

ment may ensue upon casual contact of a sound infant with the breast of a different mother having the disease, and the evil may be accomplished by a single application.

Wiseman also has observed, that "Nurses may either infect children, or be infected by them. Children that have no ulcers in their mouths or lips, nor any other visible symptom of the *lues*, have notwithstanding betrayed their own infection by transmitting it to the nipple of the nurse. In which case it is frequent to see serpiginous ulcers arise one after another, growing at length into so many round, crusty ulcers: also nodes thrusting out of the back of the hands, shins," &c.[1] He records two cases in point, of nurses who had become diseased in this manner:—"A nurse by giving suck to a diseased child, was infected with great ulceration and chops, with verrucæ on the nipples and parts about the breasts, upon which account the child was taken from her, it being suspected that she had infected the child. She had also a node on the right hand, and some breakings out upon her limbs. I, inquiring into the cause, saw this poor woman's child, which was born within the year, very well complexioned and sound."[2] It was therefore concluded that the disease existed originally in the foster-child. A

presque irreparables qui naissent quasi tous les iours, voire en l'endroit des honnestes femmes, uertueusses, et les plus souuent de grand estat et reputation, lesquelles (faisante acte de vraye mere) veulent estre nourrisses de leurs enfans: et pour aide et soulagemēt prennent vne nourrisse, laquelle ayant la vairolle la donnera à l'enfant, l'enfant à la mere, et la mere au pere. Le semblable aduiendra par emprunter nourisses, ou faire teter son enfant à autres, une ou deux fois seulement."—De Hery, *Methode Curatoire*, Paris, 1552, p. 19.

[1] *Chirurgical Treatises*, book vii. p. 4. Lond. 1676.

[2] Ibid., book vii. p. 29.

similar case occurs in the same volume:—"A nurse was brought to me, who, by giving suck to a diseased infant, had the nipple and parts about the right breast very much excoriated, and four round, hard, crusty ulcers somewhat more distant. She had a node, with pains on her right leg, also a *serpigo* on her right hand and fingers. She had not been troubled with a *gonorrhœa*, nor was the *pudendum* ever diseased, which confirmed to me that she had gotten the infection by suckling the child."[1]

Before and after the date of Wiseman's Treatises, almost every writer on the subject bore practical testimony to the possibility of this mode of implanting the poison of lues venerea. Astruc, remarking on the different modes of contamination, says, there can be no doubt as to the frequent occurrence of transmission by means of lactation.[2]

The rapid and destructive course which the disease, thus communicated, appears disposed to run, has been noticed in a paper by Dr. Barry,[3] quoted by Van Swieten (*Commentary*, 1441):—"A certain woman, accustomed to draw or suck the breasts of lying-in women, had a venereal ulcer in the mouth, which she concealed that she might not lose her employment, and consequently her daily sustenance: thus she affected some women of the better sort to a miserable degree. Dr. B. was astonished at the malignant progress of this disorder. At first the breasts were slightly inflamed; then the skin fell off; then a

[1] *Chirurgical Treatises*, book vii. p. 33.

[2] "Duos quidem priores (nempe, usu veneris et lactatu) contagiones modos certis et frequentibus experimentis ita confirmatos esse, ut in dubium venire non possint."—Astruc, *De Morbis Veneris*, lib. ii. cap. i.

[3] *Med. Essays and Observat.*, vol. iii. No. 21.

number of red pimples spread around the excoriated parts of the breast, and from these issued a thin, ichorous humour, which would have formed them into ulcers, if remedies had not been opportunely applied to them: shortly afterwards their private parts were infected, and attacked with violent itching; these parts were overrun with ulcers, and in a short time their bodies were overspread with pimples or boils. The disease made its way thus far in the space of three months. The husbands of these women were also infected and tormented with chancres, from which the venereal poison so soon diffused itself, that they had ulcers in the inside of their mouths, and red boils all over their bodies."

The woman who had been the cause of so much evil, was found when examined, to have had a small ulcer at the root of her tongue, and a large fresh cicatrix on the inside of her lower lip. "So swift is the course of this disorder, when communicated by suckling, that physicians ought immediately to obviate it by salivation, even in such as appear to be but slightly infected."[1] The same author quotes from Vercellon[2] an account of a whole village having been more or less infected, from several charitable women, moved with compassion, having given their breasts to two foundling infants infected with venereal disease.

A very remarkable instance of the same kind is that narrated by Portal of the disastrous occurrences at Montmorency, already quoted. An infant infected with syphilis, was taken from Paris to be nursed by a woman of that place. The disease was communicated from the child to its foster-parent, from the latter to her husband, who in-

[1] Van Swieten, *Com.*, 1441.

[2] *De Morbis Pudendorum*, cap. iv. p. 205.

fected another woman, and in a short time the whole town became more or less infected.[1]

The following case is transcribed from Mr. Hey's paper, partially quoted in a preceding page :—"In the latter end of the year 1770 and the beginning of 1771, a blind woman, who gained her living by draining the breasts of women during their confinement, became affected with ulcers at the angles of the lips, which were judged to be venereal. I saw the ulcers, and thought them to be of that description. She had drawn the breasts of a woman who was supposed to be labouring under the venereal disease, and the ulcers did not heal till they were treated as in a case of syphilis. Several women whose breasts had been drawn by this poor woman, became infected in the manner I shall now describe.

"Mrs. B. had her breasts drawn twice by this poor woman, upon the death of her second child, who died of the small-pox ; and within three or four weeks afterwards she perceived a swelling of the axillary glands, and complained of soreness in her throat. She consulted the late Mr. Billam, a judicious surgeon, who assured her that the disease affecting her throat was venereal, and treated it agreeably to that opinion. During this treatment she became pregnant ; but continued the use of the medicines prescribed till she arrived at the fifth month of her pregnancy. At the end of the seventh month she miscarried of a dead child. I attended her during labour, and perceived nothing amiss in the vagina or contiguous parts. She assured me that these parts had never been affected with disease, and that previously to this confinement she had borne three healthy children.

[1] On the Nature and Treatment of some Hereditary Diseases, *Med. Journal*, vol. xxi. p. 251.

"She became pregnant again in 1772; continued to enjoy good health, and was delivered, February 26, 1773, of a child apparently healthy, whom she herself suckled. When the child was about six weeks old, an eruption, which I judged to be syphilitic, appeared on its legs and arms. I immediately put both the mother and child upon a mercurial course, giving the former small doses of hydr. submur., and the latter hydr. cum cretâ. By this treatment the child was in a short time freed from the eruptions; but continued to take the medicines till the beginning of August.

"In October following, two or three small ulcers appeared on the outside of the labia pudendi of the child, and on this account the mercurial course was resumed, with the addition of an occasional dose of hydr. subm. The ulcers were soon healed; but in May, 1774, the nostrils became sore, and the nose was also tender. At the same time the voice of the child grew hoarse; the mercurial course was repeated, and continued two months. The child took the medicines also during the months of September and October, after which time there was no recurrence of disease.

"In June, 1775, Mrs. B. bore another child, who was apparently healthy at birth, and continued to be so for a few weeks. Blotches of a copper colour then appeared on the skin, but soon went away on having recourse to the mercurial medicines. After some time the blotches appeared again, and were accompanied with a small ulcer on the labium pudendi, as in the former case. The child was, however, completely cured by a repetition of the treatment, and remained well."[1]

The above case, besides the possibility of syphilitic

[1] *Med.-Chir. Trans.*, vol. vii., 1816.

inoculation by mamillary absorption, which it serves to illustrate, bears also in another way upon a question in pathology, as yet somewhat obscure, namely, the elective determination observed in the movements of some morbid principles. Thus the poison of syphilis exhibits a constant tendency towards the genital organs, although introduced into the system by another channel. Many examples of the same kind are given in the illustrative cases.

Dr. Colles has recorded an instance in which the disease was communicated by lactation. A woman who had her own infant at the breast, and having an abundance of milk, was induced to suckle another infant, and continued to do so until it died at the end of three weeks. "The manner of its death, and the state of its body, as related by the woman, leave not a doubt that this infant was affected with syphilis. Previous to her reception of the child, she and her own infant (then four months old) were in perfect health; about the time of the death of the strange infant, a sore appeared on her breast, near the nipple; and not long afterwards an eruption occurred over various parts of the body, preceded by the customary febrile symptoms. Not being aware of the nature of her illness, she did not apply for medical advice; and she has remained up to the present time without treatment, the eruption fading in one place, and then reappearing in another. Her throat, also, has latterly become affected; it presents a deep-red appearance, but there is no ulceration to be seen; the angles of her mouth are also affected by fissures. At this period of the complaint, seeing that matters were going on from bad to worse, she determined on coming into the hospital. She has had but one other child, now two years old, stout and healthy. The infant,

now ten months old, is not at all emaciated, but of a pale and sickly appearance. Several parts of its body are covered by a copper-coloured eruption, slightly raised and smooth; this particularly affects the parts of generation and the neck: it became affected nearly at the same time with the mother."[1] Mercurial treatment was adopted for both mother and child, and they were dismissed cured in the course of three weeks.

The same author expresses a doubt "whether a diseased nurse could infect the child unless she had ulceration of the nipple." He did not remember having met with such a case. My own observations lead to the belief that the poison is frequently communicated without the existence of any such lesion.

Cazenave, who appears to have paid more attention to this subject in all its branches than any other observer of the present day, has met with a number of instances of a similar character: his belief in the ready transference of lues venerea through the medium of the nipple, coincides with the opinions already expressed.

Several communications have appeared in the medical journals from time to time bearing on this topic. Of these, two well-authenticated cases are by Dr. Egan of Dublin.[2]

Six instances occur among the cases narrated in Chapter II. of this work, of syphilitic infection through the medium of the breast. Of these, five were from the mother to the infant, in none of which was the nipple or adjacent parts excoriated, and one from the infant to its mother. In Case III. the husband contracted a

[1] Colles, *On the Venereal Disease*, Lond. 1837, p. 272.

[2] See the *Lancet* for January, 1846, and the *Dublin Quarterly Journal of Medicine*, &c., for May, 1846.

gonorrhœa during the fourth child-bed confinement of his wife, and communicated the infection, believing himself cured, after the term of her convalescence. The first symptoms in the wife were vaginal discharge, irritable bladder, and flat tubercular eruptions about the vulva. At a later period she had roseolous eruptions on the skin, and iritis; and at this time the infant began to have eruptions, with sore mouth, husky voice, obstructed nasal breathing, &c.; but it continued at the breast, without inconvenience to its mother, the usual length of time, and died emaciated at the age of sixteen months. The poison continued its ravages upon the system of the mother about fourteen years, and ended in malignant degeneration of the uterus, which had a fatal issue. During the period in question, the lives of ten children born at the full term of gestation, besides an abortive pregnancy, fell an early sacrifice to the disease transmitted from their parent.

The individuals implicated in Case V. were under my especial notice from the beginning to the end of its history. I treated the father for primary syphilis when the infant was ten months old, who, as well as its mother, was then in perfect health. He appeared to be completely cured at the end of about two months, during which period, and for a length of time afterwards, no re-infection, on account of certain circumstances which existed, could possibly have taken place. Moreover, the symptoms which afterwards appeared in the wife bore no evidence of a primary nature. The syphilitic affection appeared in the child before any such manifestation was noticed in its mother, excepting purulent leucorrhœa. There remained therefore no other means of accounting for the origin of the child's disease but by imbibition

through the medium of the lacteal current: the mother having received the infection in secondary form from her husband after all outward symptoms had ceased to exist in him.

In Case XII. the mother contracted primary syphilis from her husband six weeks after her sixth delivery. All her previous children were healthy. The infant, also in health up to the date of its mother's accident, was covered with secondary syphilitic eruptions and other symptoms at three months old, several weeks before any secondary indications manifested themselves in its mother.

Case XV. is in many respects similar to the preceding; the mother having contracted a primary affection from her husband one month after her second delivery, the child and she being at the time in good health. Secondary symptoms, of characteristic form and of considerable severity, came out in the infant a length of time before the complaint had assumed the secondary type in its mother.

The history of the first stages of Case XXVI. was communicated to me by the late Mr. Fawdington, whose reputation as a pathologist will be a sufficient guarantee for its accuracy. The primary affection—a gonorrhœa without complication—first appeared in the father; it then showed itself under a severe form in the mother, who was actively treated, and considered cured in a few weeks; but the purulent discharge, with other inconveniences, did not cease. She continued to suffer acutely from vaginitis, which was occasionally mitigated by local means, and as often returned; this, and the uterine disease already described, both resulting doubtless from the gonorrhœal infection, were finally cured by local and general treatment after having existed several years.

When the infant was three months old—six weeks after the reception of the poison by the mother—it had a violent attack of purulent ophthalmia, which Mr. F. judged to be owing to imbibition of the poison with the breast-milk. After the cure of this, as the child appeared plump and thriving, it was believed the taint had been eradicated. But when twelve months old, on being weaned from the breast, the little patient had a violent attack of secondary syphilis, which resisted the simple measures first adopted, and was finally subdued by mercury. A tubercular eruption, occupying the back principally, with glandular swellings about the neck and throat, have continued to trouble him from that period until now—a space of fifteen years![1]

The last instance illustrative of venereal infection by lactation (Case XXVIII.), exhibits the translation of the poison in an opposite direction; that is to say, from an infected child to its mother, previously healthy. The history of this case presents also another feature in the doctrine of syphilitic transmission which is not devoid of interest in practice; namely, infection by vaccination, which occurred in the manner to be presently described.

That *Vaccination* may sometimes constitute the medium of introducing the venereal, as well as some other poisonous principles, from one into the system of another, would appear, *à priori*, sufficiently reasonable. Yet has the possibility of such transference through this channel been strenuously denied. I have even heard it said that vaccine virus taken from any child, whatever the nature of its constitution, or that of its parent or parents, may be, can be safely used, provided the vesicle affording it be well-formed and of healthy appearance at the time

[1] For other examples of this nature, see Case XXIII.

of its maturity. Case XXVIII., however, affords, in my opinion, ample evidence tending to a positive conclusion on this subject, and is as weighty with me, in its practical bearings, as if a hundred instances of the kind had happened in like manner. It is not unlikely that similar occurrences have been frequently noticed, and possibly may be found duly recorded; my memory, however, does not at present enable me to recal any authenticated instance of the kind.

The infant, full-grown and healthy at birth, continued in a thriving and vigorous condition until vaccination was performed, at about the age of three months. The results have already been recorded. The symptoms were undoubtedly syphilitic both in the infant and its mother, to whom the disease was directly communicated through the medium of the breast; and it was satisfactorily ascertained that the child from whom the vaccine lymph was derived, as well as its mother, had previously laboured under lues venerea.

Since the first edition of this work was published, several instances of secondary syphilitic transplantation, similar to the preceding, have fallen under my notice. Of such cases I have the notes of nine; but as their histories are in some points incomplete, I do not deem them sufficient for the illustration of so important a subject; and especially as several essential circumstances, from personal considerations, could not be supplied.

This mode of contamination bears a strong resemblance to that mentioned by Van Swieten, "that a man may be infected with the point of a surgeon's lancet, in bleeding a sound man immediately after the same operation upon a distempered person." The same author alludes to some singular observations on the same subject by the

celebrated Astruc. He has quoted also from Shenkius a remarkable instance of the infection having been conveyed by means of the scarifying lancets of a cupping apparatus during the prevalence of what was considered a new form of lues in Moravia, which the people called the "Brunnum Gallicum." "In the year 1577, on the 11th of December, the winter being then very sharp, all those who, going into a bagnio, applied cupping-glasses and scarifications, were attacked by a distemper which had almost every symptom of the venereal. Nor did the symptoms of the disorder immediately appear: for in some it remained concealed for eight days; in others during a fortnight, and in others during a month. Then an unusual heaviness, dejection of spirits, a sorrowful countenance, and grim looks, preceded the outbreak; a burning heat raged through all the swelling traces of the cupping-glasses, which was followed by a train of boils and putrid ulcers: and there was this wonderful circumstance also, that all the tracts of these glasses did not turn into ulcers, for only one or two of them at most did so; and a woman who had fifteen of these glasses applied to her, had but three ulcers from them. The habit of the body was deformed and defiled by the boils, together with scurfy ulcers and foul scabs, which discharged a thick corruption and mucus, rather like pale sanies than good matter. In the progress of the disease, some scales grew upon the head into hard lumps or warts, which, when broken or cut, discharged a viscid matter. All this was attended with nocturnal and acute pains, chiefly about the back and shin bones. Though many were thus afflicted, it appeared that they were only those who at the bath applied the cupping-glasses and scarifications to themselves; for these were all alike tormented with the same evils.

"The chief magistrate inquired into the cause or origin of this distemper with all possible care; but could find no fault with the master of the bath. The servant was then suspected, who had the office of scarifying delegated to him. He, terrified with threats rather than distrusting the justice of his cause, betook himself to flight, nor did he ever afterwards appear; from hence no certainty of the cause could be obtained. . . The distemper would yield to no other remedies but those commonly used to cure the venereal disease."[1]

Though some may feel disposed to doubt the possibility of conveying infection as above stated, I confess I see nothing marvellous in it. Many serious and some fatal results have accrued from a simple puncture or a mere scratch of the skin by means of an instrument used in the dissection of a body recently dead, although not charged with the matter of specific disease, nor as yet become putrid. Neither are such accidents limited to *post-mortem* inoculation. I myself have seen more than one instance where the cause of death was conveyed from one woman to another on the blades of a midwifery forceps, which were believed to have been made perfectly clean after each operation. These cases occurred when no puerperal fever prevailed; nor was the infection conveyed on the hands or in the clothes of the practitioner, as he attended other natural labours, both in the interim and immediately afterwards, all which did well.

The preceding observations lead to two important inferences which, I think, will be duly appreciated by every conscientious practitioner. 1st. That, in the performance of vaccination, it is impossible to be too scrupulous, not only as to the health of the child by whom the virus is

[1] Van Swieten, *Comment.*, 1441.

furnished, but also as to that of its parents: even an unhealthy condition of specific character known to have existed in those of the third generation anteriorly, should constitute a sufficient ground for refusing to make use of the matter produced by the grandchild, however healthful it may appear to be. 2ndly. That instruments employed in operating upon any individual should not be used upon another patient before they have been carefully cleansed, and immersed in boiling water and some disinfectant fluid, with a view to destroy the potency of any matter which may have adhered to them from a previous operation.

Lues venerea may be transplanted from an infected individual upon another by its application to a denuded surface, or to a sound mucous surface; as the lips, nose, eyes, or vagina, and perhaps to the healthy skin. Of the last-named kind I am acquainted with one well-marked instance; of the frequent occurrence of the others also I am convinced by observation, and do not deny the possibility of contamination through almost any medium. Cases XXII. and XXIII. will serve to illustrate one of the modes of transplantation alluded to. The patients are both, by occupation, midwives of long standing and respectable character. The first became infected with secondary syphilis from a patient who possessed the disease in this form at the time of her accouchement, and from whom the midwife received it through a recent abrasion which existed upon the fore-finger of her right hand. The disease developed itself in a most decided and severe form as a constitutional affection, which lasted, spite of active treatment, more than nine years. In the second example, the malady was contracted in like manner; the poison having been received into a

minute wound made by the point of a needle an hour or two previous to making use of the hand in the delivery of the infected party. The midwife was herself in the seventh month of pregnancy at the time, and her infant, born healthy at the full period, being carefully watched, had, at the age of five months, a chancrous ulcer under the tip of the tongue, sore mouth and throat, a pemphigous vesicle on the second toe of the right foot, and other specific symptoms, which were cured by antivenereal treatment.

If hearsay evidence were admissible, a number of instances might be here introduced illustrative of secondary syphilitic infection by the accidental application of the virus, not only to abraded surfaces, but also to the sound, unbroken skin. Vague statements, however, on a subject of this nature, are altogether inadmissible, and none should be received without the strictest scrutiny. On no topic whatever are men so little inclined to be candid as in matters liable to endanger their reputation as regards their conjugal fidelity. Even when the delinquency is confessed, there is still, not unfrequently, an unwillingness to believe themselves tainted or unclean, and they would eagerly adopt the antiquated notion of an infectious atmosphere. One undoubted instance, however, has fallen under my own notice, where secondary chancre arose in a part of the body previously sound, by the application of the matter of a secondary sore. The question of the risk incurred was remarked upon at the time, but the virus was deemed to be innocuous in that particular situation, and the circumstances were quite forgotten until the characteristic sore made its appearance about two months afterwards. Cazenave has recorded a similar instance which occurred in the person

of a young physician who had never had the venereal disease; the symptoms came on a few days after having touched some infected patients, without having on his own skin the least abrasion. "J'ai vu moi-meme," says this writer, "une éruption syphilitique, chez un jeune médecin, qui n'avait jamais eu de maladie vénérienne, et survenue, peu de jours après avoir touché plusieurs femmes infectées, sans avoir la moindre ecorchure."[1] Since the first edition of this work, I have witnessed several instances of this kind of implantation.

The case referred to by Antonius Gallus,[2] of a midwife who became affected with lues venerea after attending a woman in her accouchement in whom the disease still lingered, was considered by him to have arisen in consequence of her having inhaled the effluvia emitted from the discharges at the time of delivery. The infant was stated to have been quite sound and healthy. It is much more probable that the virus was absorbed into her system on being allowed to rest for a length of time on the hands. De Hery, who has noticed this case, arrived at the same conclusion, namely that the infection had been inhaled.[3]

During the period of lactation, the nipple ought pro-

[1] *Traite des Syph.* p. 115.

[2] De ligno sancto non permiscendo. Parisiis, anno 1540. 8vo.

[3] "Maistre Antoine le Coq (Antonius Gallus) docteur regent en la faculté de medecine, homme docte et d'authorité, affirme au livre qu'il a faict *de ligno sancto non permiscendo*, qu'il a cōgneu sage femme, laquelle en receuant l'enfant à vne femme variollée, gaigna ladicte variolle (l'enfant sain es non affecté d'icelle) qui n'estoit que par la reception de l'air et vapeur veneneuse receue assez promptement et plus tost par les porositez des mains et bras, que plus difficilement peuuent infecter les parties nobles, que par la respiration qui se faict par la bouche."—De Hery, *Methode Curatoire*, à Paris, 1552, p. 17.

bably to be considered as participating in the nature of mucous tissue. Whether so or not, there can be no doubt that the virus of lues venerea is readily admitted through this channel, although the surface be perfectly sound at the time—a fact which has been noticed by several writers. It is further proved also by Case XXVIII., and numerous others, with which it is needless to crowd these pages.

However incredulous some may feel as to the possibility of secondary infection by absorption through the pores of the healthy integument, few will refuse to admit the fact as regards the mucous surfaces. Most of the cases detailed in the preceding chapter have a direct bearing on this point, especially those intended to illustrate the translation of the poison by means of lactation, already referred to. One still more instructive is Case XXV., in which two young girls, ten years of age, became diseased by kissing the mouth of an infected infant. Another case, equally remarkable, in which the disease was contracted through the same medium, has been mentioned at page 244, preceding.

Many examples of a similar character are on record, with which, however, I shall forbear to trouble the reader by quotation beyond a few instances. M. Cullerier relates the case of a young lady who became diseased from having received a kiss on the mouth from an officer. Four or five months after this occurrence an ulcerated tumour appeared on the lips; this tumour was pronounced, by two celebrated practitioners of Paris, to be cancer, and its removal by excision was consequently recommended. The patient having a dread of the operation, applied to Cullerier, who, in the first instance, entertained some doubts as to its specific nature, the patient declaring that

she had never suffered any improper intimacy with any man, with the exception of the kiss above mentioned, received four months previously. This information was deemed sufficient to account for the mischief. He subjected her to a course of mercurial treatment, under which the symptoms entirely vanished.

Biett has recorded several facts of the kind. A commercial traveller contracted a chancre from the lips of a female. At the moment of his departure upon a journey, the infection not having yet produced any indication of its presence, he kissed the mouth of his niece, a child twelve years of age, who, a few days afterwards, became affected with the same kind of symptoms which simultaneously began to develop themselves in him also. The same author, among a number of similar examples, mentions one which, revolting as it may appear, I shall take the liberty of quoting:—A child, taken by its mother on its way to school, lingered to play in the fields in the neighbourhood of Paris. Whilst here, he was assailed by a man who, partly by force, partly by persuasion, succeeded in effecting some kind of base contact, with the intention, doubtless, in accordance with a superstitious notion which formerly prevailed, of getting rid of his filthy disease in this way. In a short time a number of flat venereal pustules broke out about the lower part of his person. Occupying the same bed with his younger brother, a child of six years old, the patient wickedly applied his finger, loaded with the matter of his sores, within the lips of the other. Both these children were brought to Biett for consultation. The younger had, at the left corner of the mouth, an ulcerated tubercle; the elder was still affected with a number of flat pustules and warty vegetations about the anus;

with other characteristic symptoms. Assuredly (remarks Cazenave), in the younger at least of these two children, who endeavoured to avoid the disgusting touch of his brother, there certainly could have been no physiological excitation.[1]

With examples such as these constantly brought before us, it will scarcely appear surprising that in former times, when the venereal virus was undoubtedly more virulent than it is at the present day, and the etiology of the disease less carefully scrutinized, modes of infection should have been believed in, the validity of which we do not now acknowledge.

Although we may discredit the possibility of receiving the infection by drinking out of the same glass or smoking the same pipe, by sleeping in the same bed that has been previously occupied by one diseased, inhaling the atmosphere which surrounds him, using the same bath, or steadfastly regarding a gonorrhœal ophthalmia; yet I, for my part, would submit to many inconveniences rather than knowingly incur the risk of contamination by inattention to even such trifling and apparently harmless circumstances as these. Indeed, I am strongly inclined to coincide with Biett's conviction, that "there exist certain forms of syphilis with which every species of contact may prove dangerous."[2] The truth of this remark will probably be acknowledged by many experienced practitioners.

The experiments of two eminent syphilographers of the present day, Mr. Wallace of Dublin, and Dr. Waller of Prague, on the reproduction of secondary phenomena

[1] Cazenave, Op. cit., p. 123, &c. See also Colles *On the Venereal Disease.*

[2] Cazenave, op. cit., p. 115.

by inoculation, although no way strengthening my convictions on this doctrine, go to substantiate what has been abundantly illustrated in the preceding pages on this subject. Mr. Wallace practised inoculation by means of matter taken from secondary sores upon six individuals, previously in good health and perfectly free from syphilitic taint at the time, and thus succeeded in producing syphilitic symptoms in each instance. The three following examples may be sufficient for the present purpose:—

1. Having by means of friction, practised with the end of the finger covered with a piece of linen, denuded the skin of its epidermis on the inner aspect of the thigh of a young man, nineteen years of age, of good constitution and in perfect health, he procured a raw, bleeding surface. To this surface he applied a piece of lint saturated with matter taken from the secreting surface of a condyloma of secondary syphilitic character. On the 18th day the wound was quite healed, and he was still free from all appearance of disease. On the 28th day, tubercles appeared on the situation of the former abrasion. On the 51st day, these tubercles were superficially ulcerated; on the 65th day, he had sore throat; on the 75th day, he had a squamous eruption of a dark-red colour on the chest and abdomen; on the 95th day, he had pains of the bones and nodes, when a course of mercury was commenced, by which he was cured on the 146th day, twenty-one weeks after the implantation of the matter.

2. In another case, he inoculated upon a man in sound health, a little pus taken from an ulcerated tubercle of secondary syphilitic character. On the 7th day, the wound made by the inoculative process was quite healed. A new inoculation was then made on another part, the wound of which was quite healed on the 12th

day. Three weeks after the first and two after the second inoculation, indurated tubercles appeared on the parts inoculated: these soon ulcerated. On the sixtieth day, there were blotches on the skin, then tubercles on the tonsils. On the 78th day, the tubercles on the inoculated parts had become fungoid. On the 89th day, there appeared a crop of syphilitic tubercles all over the body. He then began to administer iodide of potass. The eruption slightly faded, but new eruptions showed themselves on the skin and tongue. Four months after the first inoculation, the patient, enfeebled and in a state of prostration, was treated with mercury, by which he was speedily restored to health.

3. In another example, Mr. Wallace in a similar manner applied upon both thighs of a healthy young man, twenty years of age, a little pus taken from an ulcerated tubercle of secondary character. The wounds were healed on the 17th day. Twenty-eight days afterwards, crusts situated on a raised base, were formed on the parts which had been inoculated. On the 30th day, the crusts separated, leaving condylomata, with ulcerated surfaces. He had violent nocturnal headaches. On the 60th day, the condylomata had a fungous aspect, and there was a papulo-tuberculous eruption on the skin. On the 102nd day, he had iritis and syphilitic pharyngitis. He was promptly and completely cured by mercury.

In one of Mr. Wallace's cases, the inoculation seemed at first to have failed; but after a while a tubercle appeared, every way similar to that from which the matter had been taken.

Results similar to the preceding, and equally satisfactory, have been obtained by Dr. Waller, of Prague. His first experiment was practised upon a child twelve years

of age, perfectly healthy and free from syphilitic taint. Into a long scarified scratch made on the right thigh was introduced a little pus taken from the surface of a mucous tubercle of secondary syphilitic character. At the end of four days the wound was healed. On the 25th day after the inoculation, there were fourteen cutaneous tubercles on the cicatrix of the wound where the inoculation was practised. By little and little, the tubercles increased in size, and became confluent, forming a long mucous tubercle, which was soon covered with scales. Fifty-two days after the inoculation, dark-red blotches appeared on the belly, chest, and back, and shortly afterwards the whole body was covered.

Dr. Waller's second experiment was unusually interesting, having been made with the blood of an individual affected with secondary syphilis. Three to four drachms of blood, taken from the syphilitic patient, was applied to a scarified wound made on the thigh of a boy fifteen years old, quite healthy and free from syphilitic taint. At the end of three days, the wound was healed. On the 34th day were seen, on the line of scarification, two tubercles, distinct. These tubercles grew and united, then ulcerated. On the 65th day after the inoculation, and thirty-one days after the first appearance of the tubercles, exanthematous patches appeared on the hypogastrium, back, chest, and thighs, and which were speedily developed into a well-characterized syphilitic roseola. This roseola soon covered the whole body, and some of the patches on the thighs and belly became papulous.[1]

[1] Wallace, *Syphilidologie de Behrend*, t. l.; extrait par B. Schnepf, dans *Annales des Maladies de la Peau*, t. iv. p. 5, &c. Waller, *Du Caractère Contagieux de la Syphilis Secondaire*, trad. par A. Axenfeld, dans *Annales des Maladies de la Peau*, t. iii. p. 174.—*Archives Générales de Médecine*, Février, 1856.

It was already stated in these pages that Hunter made experiments similar to some of the preceding with secondary syphilitic matter, and it is highly probable that similar results followed, and were seen and treated by others, but not by him; because, the scarifications healing speedily, and no secondary manifestations appearing within the same period in which a primary sore would have shown itself, the patients were dismissed, and the experiments considered as negative. He did not wait thirty, or forty, or fifty days, to see the effects, by which time the patients were probably under the care of practitioners in remote districts for symptoms which were at that time absurdly denominated pseudo-syphilis.

There exists, perhaps, no morbid principle, with the habitudes of which we possess any tolerable acquaintance, which more certainly becomes a constitutional disease—a disease of the blood—than does that of syphilis; nor is there any whose continuation by hereditary transmission can be more clearly and satisfactorily demonstrated. The persistence of the taint in men who have once laboured under a primary affection, and from whom every external indication of its presence has been removed to the satisfaction of both physician and patient at the time, is, I think, abundantly proved. Independently of recorded facts bearing directly on the subject, I need only refer to at least one half of the cases narrated in the preceding chapter for illustrations of this position. I would direct the reader's attention especially to Cases XIV., XXX., XXXI., for a proof of its long-continued prevalence. In the two last named, no offspring remained to bear testimony; but the disease reappeared in an unequivocal

form both in husband and wife, and the absence of offspring was in all probability due to the same circumstance. In the first-named of these, a child was produced by a second husband, and died of syphilis fifteen years after the primary affection in the mother, the second husband having had no disease of the kind at any time.

Case XXV. is one of an instructive nature. The husband of Z. had never suffered from syphilis in any shape. His wife contracted the disease in the secondary form in her eleventh year from her infant sister, who possessed the complaint congenitally. It was already stated that the syphilitic nature of the eruption on her face was at first doubted by myself, and probably would have been so still by others had she had no offspring. All the symptoms, however, which presented themselves in the child bore characteristic evidence of syphilis, any one of which was sufficient to decide the point. I need only allude to the warty vegetations springing out of the middle of the superficial ulcer on the right side of its neck, a phenomenon never observed in simple sores. This occurred ten years after the reception of the poison by the child's mother. Neither she nor her husband was descended of scrofulous families, nor had either exhibited a symptom of scrofula at any time, yet the glandular swellings in the infant bore several of the characters of this disease.

It was commonly believed by writers of past ages, that the venereal disease, imperfectly treated, was liable to merge in scrofula. This kind of conversion, according to my own observations, is by no means unlikely. I believe, however, that the transformation does not happen in the individual who has possessed the primary disease, but in the progeny thence issuing. De Hery states that he has often treated lues venerea in individuals, especially

females, when it was complicated with struma, sometimes in form of ulcers, sometimes not so.[1]

It has been already stated that Hunter's opinion was adverse to the doctrine of secondary inoculation. Yet does he affirm that "the venereal disease becomes often the immediate cause of other disorders, by calling forth latent tendencies to action," and that "when the bones are affected, or the nose, scrofulous swellings, &c., may be the consequence, although the disease may have been cured."[2] The effects of syphilis, therefore, although not syphilis in characteristic form, may, according to this author's experience, be continued hereditarily, and few will hesitate to accord this tendency to scrofulous affections also.

Passing over an accumulation of evidence confirmatory of the hereditary continuation of the syphilitic taint, contributed during the present century, chiefly by continental writers, I will briefly notice two cases in point recorded by Dr. Campbell of Edinburgh. The first of these occurred about the year 1824. The lady, a young wife, whose husband was a physician, was three times delivered prematurely: two of the children were born alive, but died after a few hours; the third was still-born and decomposed. It was then ascertained that the husband had suffered from chancre six months before marriage, of which he was considered cured, and he had not since experienced any indication of the existence of syphilitic disease. Both husband and wife submitted to mercurial treatment, after which the next pregnancy was

[1] "J'en ai traicté maintes (specialemēt femmes), ausquelles elle estoit compliquée avec strumes ou escrouelles, les vnes ulcerées, les autres non."—De Hery, *Méthode Curatoire*, p. 11.

[2] *Treatise on the Venereal Disease*, pp. 26, 27.

continued to its full term without the least inconvenience, the child being alive and healthy. The second case happened in 1843. The lady's first pregnancy ended in the eighth month—the child, very puny, died at the age of eleven days; the second ended at seven months, the child dying in an hour and a half; the third was still-born, and putrid at six months. The husband had repeatedly had syphilis, the last affection having occurred *twenty-three* years previously, and *seventeen* years before marriage. Though assured to the contrary, the husband still believed that he had not been perfectly cured of this complaint. Both parties appeared in perfect health. They were placed under a mercurial course, after which a healthy living child was produced.[1] Dr. Strange has published in the same journal the particulars of a case every way similar to the preceding.[2]

"So long as a diseased father (says Ricord) is under the influence of constitutional syphilis, the germ which is by him conveyed into the uterus caries along with it the syphilitic diathesis; and it must be noticed, that the evident manifestations upon the father are not absolutely necessary; the diathesis is quite sufficient to produce upon the offspring the effect mentioned. When the secondary period is passed, and the tertiary manifestations begin to appear, the disease is no longer transmissible: the children are then born with another disposition, namely, the scrofulous; and the tertiary symptoms of the mother have the same influence on the child as those of the father." Then he proceeds to say: "There is no such thing as an infection of the child by the mother, she having been contaminated by the father; but that,

Northern Journal of Medicine, May, 1844, p. 9.
Ibid., September, 1844, p. 308.

as before stated, the husband procreates an infected child, which may then propagate the secondary poison to the mother; for when there are no children, the mother does not suffer. But suppose the mother to conceive whilst herself and the father are quite free from the syphilitic diathesis, and that diathesis subsequently happens to arise with the father, can it be transmitted to the child? I do not hesitate in answering this question in the negative; and I must look upon that opinion as very absurd which supposes that the father can contaminate the fœtus through the membranes. In order that a child, the offspring of healthy parents, should be at all infected, after it has existed more or less time *in utero*, the mother must, by direct inoculation, become affected with an indurated chancre and all its consequences; then the fœtus may inherit the diathesis of the mother. The latter might, perhaps, transmit the diathesis to a first fœtus by means of a second germ (the first being quite healthy) in a case of super-fœtation; but, even under these circumstances, it would still be by the instrumentality of the mother that this first fœtus would become contaminated. It is therefore evident that the mother, in order to infect her child, must have upon herself a secondary syphilitic affection,—(necessarily a sequela, according to this author, of a primary indurated chancre),—either acquired whilst the fœtus is *in utero*, or before that event."[1]

With deference to M. Ricord, I cannot help regarding the statements contained in the preceding quotation as somewhat unsatisfactory. That a father labouring under the influence of constitutional syphilis may convey a diseased germ into the womb of the mother, although

[1] *Lancet*, April 8, 1848, p. 383.

there be no evident manifestation of it upon him, is perfectly true, as is shown in the majority of the preceding cases. But that a father or mother labouring under tertiary symptoms is incapable of communicating true venereal symptoms to the offspring, is a statement which by no means agrees with the numerous facts to the contrary which have fallen under my own observation, of which many in point are already recorded.

If the reader will refer to Case XIII., it will be seen that the wife, after having been freely treated and apparently cured, on two separate occasions, became as often reinfected by her husband, labouring under what M. Ricord would call tertiary syphilis, although no new disease had been received by him since the first inoculation, more than twelve years previously. The few symptoms which occasionally made their appearance in his person in form of nocturnal pains of the head and limbs, glandular enlargements; thickened, excoriated fauces; chronic periostitis of the sternum, and eruption of erythematous blotches, were undoubtedly of tertiary type; yet was the taint in this form not only communicable to his wife, but also through her to the offspring, who died of genuine lues venerea. It is true no such external indications of disease appeared in her, with the exception of occasional slight swelling and excoriation of the vulva, which was not constant; but the uterus presented indubitable marks of syphilis both at first and on each succeeding reimplantation of disease; and this phenomenon disappeared only under the influence of constitutional treatment.

But M. Ricord states that "there is no such thing as an infection of the child by the mother, she having been contaminated by the father." For a refutation of this

position the preceding case might be deemed sufficient: additional evidence on this point, however, is afforded by Case XIV., and others. The woman, as was already stated, immediately after marriage at the age of seventeen, contracted syphilis from her husband, and being in due time reported cured, bore her first child to a second husband at the age of thirty-two, having been sterile upwards of fourteen years. This second husband, as far as could be ascertained, never suffered from a syphilitic disorder in any shape; yet had the infant born to him true lues venerea, of which it died. The uterus of the mother was found, both during pregnancy and after delivery, to be affected with syphilitic disease, and bore marks of former lesion of the kind. The affection yielded to mercurial treatment.

The examples narrated in Case XXIII. afford abundant evidence towards the subversion of the doctrine quoted. The principal patient, a midwife, contracted the infection from one who never had primary syphilis. Her own infant, born two months afterwards, exhibited secondary syphilis of unmistakeable character. While the wound on her finger was in process of healing, she communicated the disease to a patient whom she attended in parturition, who became consequently affected with disease of precisely similar character, and communicated it to her infant, otherwise healthy, through the medium of the breast-milk. This infant had also lues venerea of a severe character. In three other instances brought under my notice, the infection was conveyed by the same midwife in a precisely similar manner. Each mother bore early evidence of contamination, the symptoms coming on, as in the above-named case, from the sixth to the fifteenth day. In each of the children the eruptions

began to appear in a few days after the accession of symptoms in its mother; and although the cases differed one from another in some points, the eruptions in all the cases were evidently but varieties of one type, the specific characters of which were broadly and similarly delineated in each respectively. It is to be regretted that the case of the poor woman who suckled the midwife's infant, had an unfavourable termination as regards the fœtus. She was delivered at the full term of gestation; but, owing to disproportionate development of the head of the child, its life was necessarily sacrificed for the mother's safety. It might have served as a means of ascertaining whether her system had imbibed any contaminating influence from the tainted child she had previously fostered.

An instructive example is also seen in Case XXVII. The husband, in whom the morbid principle, though latent, was still active nine years after the first and only primary affection which, according to his own testimony, he ever had, communicated the disease to his wife, and it was continued from her to the offspring. The wife had no primary affection, but had characteristic disease of the uterus, the knowledge of which first led to the inquiries which elicited the particulars of the man's history. The notion that the syphilitic taint must be conveyed "through the membranes," if at all, during pregnancy, seems a phisiological impossibility. I believe this to be, indeed, a very unlikely mode of infection. The taint communicated by the father through intersexual congress being received by the vaginal or uterine absorbents, doubtless becomes a blood-disease in the mother, and is thence conveyed to the fœtus *in utero* through a physiological and most natural channel. "In order that a child, the offspring of healthy parents, should be at all infected,

after it has existed more or less time *in utero*, the mother must, by direct inoculation, become affected with indurated chancre and all its consequences; then the fœtus may inherit the diathesis of its mother."[1] I am fully persuaded, however, from evidence which cannot be mistaken, that this condition is not at all necessary to the property of transmission. The proof is given in Cases I., II., V., *et passim*.

My experience leads me to believe that syphilis, in the secondary as well as in the tertiary form, can be conveyed from father to mother, and from the latter to the offspring, without any cutaneous manifestation whatever of its presence in one or the other. That the non-existence of the disease in the mother has generally been believed, in cases where it has appeared in the offspring, is owing, in my opinion, to an oversight committed in neglecting to examine the uterus in such cases; for in almost every instance examined by me, characteristic disease of this organ was evident whenever there was reason to suspect it in the offspring, although no evidence whatever of its presence existed outwardly in the parent.

The age at which symptoms of lues venerea manifest themselves in the offspring of a parent labouring under constitutional syphilis, varies according to circumstances. In some instances the poison is evidently brought into active operation upon the ovum so as to arrest its development and destroy its vitality while yet unborn. This, indeed, may take place at any period of intra-uterine life. In diseased mothers we frequently meet with abortions taking place in the second month of pregnancy, and at any subsequent period. In cases where the fœtus is expelled still-born, between the period of quickening and

[1] Loc. cit.

the eighth month, the cuticle is generally loose and in a state of desquamation. This condition is commonly attributed to the circumstance of its having been dead within the uterus for a length of time previously, notwithstanding the declarations of the parent that the fœtal movements were felt a very short time before delivery. Such testimony ought not to be disregarded in all instances, for in several cases where the still-born fœtus was expelled with extensive desquamation of the cuticle, I had ascertained, by aural examination, that the child was alive only a few hours before delivery. Moreover, living children, whether born prematurely or at full term, are not unfrequently seen having the same state of the surface extensively existing; and often a number of large vesications exist in different parts of the body, containing a quantity of bloody serum, leading to the belief that a similar condition previously prevailed in those parts where the cuticle was loose and broken. In such cases there is usually a discharge, before expulsion is effected, of a quantity of offensive brown sanies, probably the product of these vesications. It is fair to infer that the morbid change in question is due to the prevalence of an active cutaneous disorder in the fœtus in form of pemphigus *in utero*.

The child may have syphilitic eruptions on its skin at the moment of its expulsion from the mother. This has been doubted by some writers, amongst whom are Trousseau and Lasègue, of Paris, who deny that syphilis ever appears in the infant at birth, or before the second week.[1] My own statement to the contrary rests upon ocular testimony, which theory cannot subvert. Instances in illustration are mentioned in Cases XII., XVIII., XX., and XXI.

[1] *Monthly Journal*, December, 1847, p. 436.

However, the symptoms most commonly begin to appear in the infant from the fourth to the twentieth day of life. In some instances the announcement is much later, especially when the taint has already run through more than one individual previously, and has thus been modified in virulence and altered in aspect. In Case XXVI. the first decided symptoms appeared at the age of twelve months. In another case, not detailed here, the symptoms first appeared at the age of five years, in form of syphilitic eczema and synovitis of the left ankle-joint, which was regarded as white swelling, and did not yield for more than twelve months under simple treatment; it was at length cured, on the father's history being made known to me by his declaration, by anti-venereal remedies. Dr. Fergusson, in his *Observations on the Venereal Disease in Portugal*, remarks:—"There still remains for consideration one phenomenon of the disease, which travellers have asserted to exist, and many have taken for granted,—that of its being transmitted hereditarily in the secondary form; not appearing, as with us, in the infant soon after birth, but affecting the constitution about the age of puberty with nodes, tetters, &c."[1] I feel confident that I have seen many instances of this kind, the particulars of which could not here be conveniently given in detail. For two examples of this kind, see Case XXVI., preceding.

IV. OF CERTAIN ABNORMAL STATES OF THE UTERUS WHICH INDICATE THE PRESENCE OF LUES VENEREA.

It is doubtless a singular circumstance, but not the less matter of truth, that a man may retain the power of transmitting the syphilitic poison by sexual contact a

[1] *Medico-Chirurgical Trans.*, vol. iv. p. 1.

number of years after all noticeable traces of the disease under which he laboured shall have disappeared, and although his functional health shall have been unexceptionable the whole time. That such, however, is a fact of frequent occurrence was already shown in at least two-thirds of the cases previously narrated. Whether an infectious matter continue to be furnished by the secreting apparatus situated around the corona glandis, or whether the noxious agent be eliminated within the deeper channels and mixed up with the seminal fluid, appears uncertain. If the former be the correct supposition, some local manifestation ought to be looked for upon the walls of the vagina with which the external parts of the male organ are brought into contact; yet is disease of the vaginal membrane in females thus infected of comparatively rare occurrence. In only two of the recorded instances (Cases I. and XXX.) did this happen, the husband in Case I. having a small wart on the glans; but in the other, no morbid appearance whatever could be detected in the man, externally. The wife, in each case, had uterine disease, and both had vaginal excrescences in addition. The supposition that the matter of disease is conveyed along with the seminal secretion seems much more satisfactory, as affording a more convenient means whereby to account for the uterine affection which almost invariably prevails under such circumstances.

In all the cases examined, with one exception (Case XXIII.), disease of the uterus of characteristic aspect was found to exist. It seems to matter but little through what channel soever the poison be introduced,—whether by sexual congress, by labial contact as noticed in two of the individuals (δ and ε), Case XXV., and another mentioned at p. 244, through the medium of

the breast, as in several cases already instanced; the disease seems to have a constant tendency towards the genital organs, in the female at least.

The symptom which is perhaps the most invariably present is a vaginal discharge, having for the most part purulent properties. On making the requisite inquiry on this subject, however, the patient's statement alone is not to be depended upon. On many occasions in which this inquiry was made in the plainest terms, the patient has confessed ignorance of any such phenomenon; but on referring to the linen, the indication has been at once discovered which she had never before noticed. And indeed, this has happened, not only with the humbler classes, but sometimes also among educated people. It frequently happens that patients, being prepared for submitting to the required procedure, take the precaution, from feelings of delicacy, to remove these diagnostic signals: in such cases no trace of discharge is to be observed. On occasions of this kind I have transferred the secretion from the orifice of the uterus to a glass for microscopic inspection, and have invariably found the material charged with pus-globules. On directing the patient's attention to the subject, for future examination, the characteristic stain was generally noticed. In all morbid states of the uterus and vagina a like phenomenon is commonly observed; but the stain in venereal affections is different from that communicated by the product of simple ulcerative or inflammatory action, although in what this difference consists, chemically considered, I do not exactly know. In venereal affections the colour alluded to has a greenish tint, and is often very difficult to remove from the linen by washing.

Certain constitutional phenomena merit attention on

account of the frequency of their presence. The faculties and energies, mental as well as physical, are for the most part notedly below the healthy standard, as compared with their wonted state previously, and with what they ought reasonably to be expected to be, judging from the actual state of organic development. In those affections which have resulted from the more severe forms of primary syphilis, whether in the first or second party, no matter how remote the period of the first inoculation (being still an event of the existing generation), the skin of the face exhibits an appearance, which I think is never seen in any other form of disease. This indication consists in a *leaden* or *ashy pallor* of the skin. In those of the bilious temperament, and in whom the skin is naturally void of the capillary blush, it usually pervades the whole *figure;* in others naturally ruddy, it occupies principally the eyelids and temples, the bridge of the nose, and parts about the lips and chin. But of all parts of the countenance, the lower eyelid has this characteristic mark most decidedly pronounced. A young wife, twenty-four years of age, who had borne two healthy children, removed with her husband from a small agricultural to a large manufacturing town, fourteen months since. Three or four months after their change of residence, she consulted me for disordered digestion of a trivial nature, which was thought to be the result of change of air and diet. She soon got well. Six months later she applied to me again. The contrast in her appearance between her condition on the occasion of her first visit and the last, was most striking. She is a person of the sanguine-bilious temperament, of tall stature, vigorous frame and naturally of ruddy complexion. Her position for some years before marriage

was that of lady's companion. On her first appearance, ten months before, she was the picture of rustic health, although complaining of dyspeptic symptoms; on the second occasion, three days since, the change in her appearance was striking and remarkable. The bloom of health had disappeared from her cheeks; the whole countenance was of a leaden paleness, with an appearance of languor and debility. The menstrual crisis, which formerly was wont to continue six or seven days, had, during the preceding three months, been shortened to two or three days, and the discharge, beforetime abundant, had become scanty. The abdomen was swollen; the bladder irritable; the vulva excoriated; and she had a copious leucorrhœa of peculiar character. These symptoms she attributed to the existence of pregnancy, which was found, however, not to be the case. The lower section of the uterus was enlarged and indurated; its surface erythematous over its entire extent, and occupied with small aphthous patches. The body of the uterus was enlarged and tender under pressure, and there was evidence of abdominal congestion.

On the following day, her husband, who had become a commercial traveller, related that about four months previously, on one of his journeys, he contracted a gonorrhœa, of which he thought himself cured ere his return home; but he found that, a day or two afterwards, the complaint returned, and shortly afterwards the symptoms commenced in his wife.

The appearances found to prevail in the uterus in cases of lues venerea are constant and altogether peculiar. They may be reduced to the following forms:—1st, hypertrophy, implicating the lower section merely, or extending upwards to the body, or even involving the whole organ,

with or without induration, existing circularly or partially, or extending in some instances as far as the touch can ascertain the condition; 2nd, erythema, presenting an even surface of a dark-red, glistening aspect, or being interspersed with a number of white elevations, usually denominated follicular enlargements; 3rd, excoriation—the cuticle, when the parts happen to be viewed at an early period, being broken in such manner as to present an appearance as though the subjacent structure had increased to a dimension beyond the capacity of its cuticular envelope, which seems as though it had burst from over-distension; 4th, aphthous ulceration; 5th, endometritis, inflammation of the inner surface of the uterus, terminating externally, where it is sometimes seen to surround the orifice, at other times implicating but one labium, and limited outwardly by a defined margin; 6th, warty excescences.

1. Concerning the first of the above-named conditions, it may be noticed that they are by no means peculiar to syphilitic affections: they also result from or accompany simple acute or chronic inflammation of the uterus, or endo-metritis, especially if attended with chronic thickening of the lining membrane, and consequent stricture of the higher portion of the canal of the cervix,—a state which not unfrequently constitutes the pathology of dysmenorrhœa. But in a considerable proportion of the cases which have fallen under my notice, the morbid alterations now under consideration have been clearly traceable to the taint of syphilis. Moreover, hypertrophy and induration, one or both, very generally accompany the diseased appearances next to be noticed, some of which may possibly be found hereafter to be pathognomonic of the syphilitic diathesis, even in the absence of other indications.

2. When the lower section of the uterus, in a state of hypertrophy, whether indurated or not, presents a dark-red surface, somewhat variegated or mottled, or measly, and especially if it appear tense and glistening, it may be pretty confidently asserted that the patient has the syphilitic taint, and that she will be liable to transmit the evil to her offspring, in whom it will assume an unequivocal shape. This state of parts has generally happened in women who have derived the poison from one labouring under secondary symptoms supervening upon genuine chancre which has been badly treated. Sometimes the inflamed surface is seen to be more or less studded with a number of white pustules, or rather purulent vesicles; for on being punctured, a thin white fluid escapes, and the vesicle collapses and disappears from view, becoming identified with the red surface around. The fluid discharged from them consists of a thin serum more or less loaded with pus-globules. I know not if the presence of these vesicles ought to be regarded as peculiar to the syphilitic diathesis.

3. When the lower section of the uterus, enlarged and erythematous, presents patches of excoriation without ulceration, and appearing in the early stages as if the cuticle had broken from over-distention, the woman has, in all probability, the syphilitic diathesis; and although the taint may have been derived from gonorrhœal inoculation, it is still liable to be transmitted to the offspring. Simple excoriation is met with, however, as a sequel of chancre as well as of gonorrhœa; but more frequently of the latter. When supervening upon gonorrhœa, the earliest symptoms of the infection in the offspring are commonly, though not always, purulent inflammation of the eyes, of the vagina, the ears, or the

umbilicus. It is not here insinuated that purulent ophthalmia of infants is always a gonorrhœal affection, or that inflammation of the other organs just named has invariably a specific origin: these are debateable questions. If a mother should have a virulent gonorrhœa at the time of her delivery, and the infant on the second or third day experience an attack of purulent ophthalmia, the probability will be that the disease has arisen from direct application of the matter to the organ diseased. But the primary affection in the mother may date from a long time anteriorly; the symptoms, to all outward appearance and to her own consciousness, may have long since disappeared, and yet shall the infant have gonorrhœal or venereal inflammation of the kind alluded to, and this may be attended or followed by other symptoms unmistakeably syphilitic in character. Under the last-named circumstances, the ophthalmia does not always show itself on the second or third day; it may not come on until the age of one, two, or three weeks, or later, showing that it is not owing to direct inoculation, but to a constitutional disorder inherited from its parents. Neither are such inflammatory affections necessarily accompanied or immediately followed by other secondary indications: it may be after the lapse of several months that specific eruptions make their appearance, or are substituted by glandular enlargements, mucous inflammations, mesenteric disease, affections of the joints, or, at a later period, by defective development.

4. Sometimes the lower section of the uterus, morbidly enlarged, presents a number of aphthous ulcerations, very similar in aspect to those so denominated in cases of thrush (stomatitis aphthosa) in children. But, as seen on the labia uteri, they are surrounded by, or

rather are situated upon, a dark-red, inflamed surface. They are slightly raised, in shape irregularly circular, and appear at first view as grey isolated incrustations. If a piece of dry lint be brushed over them, the crust is detached, leaving a red surface of corresponding dimensions, which is minutely granular, and bounded by a well-defined, slightly elevated margin. They are about a quarter of an inch in diameter, larger or smaller. The presence of this eruption on the cervix uteri, so far as I know at present, is peculiar to the syphilitic diathesis, which, in the cases I have investigated, resulted in some from primary syphilis long passed, in others from the infection derived during the existence of what Cazenave denominates the primary stage of a severe secondary affection. A woman so disordered is capable of transmitting the taint to her offspring, in whom it is liable, if not actively treated, to run a rapid and destructive course.

5. The fifth condition above indicated, consists in *orificial* ulceration or inflammation, presenting two distinct varieties, as follow :—The orificium uteri is surrounded by a deep red circle of inflammation, tense and shining, but unbroken, secreting a glairy mucus ; the redness usually terminates upon the most prominent part of each labium by an abrupt margin ; but it is occasionally much more limited. It sometimes implicates one labium only ; more frequently both. Internally, it seems to be continuous with a similar condition existing in the interior of the cervix, reaching to a point beyond the sphere of vision, and from within there exudes a purulent sanies, brown, or streaked with blood. The cervix external to the inflamed boundary, as well as the contiguous vaginal pouch, have the usual ashy paleness, and appear healthy. But at a point somewhat less than an inch external to

the said boundary, the vaginal membrane presents a line of erythematous redness, extending generally entirely around the canal, gradually fading into the healthy tint towards the vulva. This line, which commences abruptly, I formerly, on several occasions, attributed to the pressure of the speculum during examination; but it will be found to indicate the point of the vaginal membrane which, when the surfaces lie in contact and at rest, adapts itself to the labia uteri, and is consequently that part of the canal upon which the discharge issuing from the uterus is deposited, on escaping from the os tincæ. In a state of health, this line does not exist; its presence seems to be owing to the action of the irritating fluid secreted by the morbid surfaces of the superjacent organ. This state of parts usually supervenes upon *gonorrhœa.* I cannot assert that this secretion is capable of inducing virile gonorrhœa, but I think preputial herpes occasionally happens after sexual congress under such circumstances. Children born of a parent thus affected have had constitutional syphilis.

The other form of disease of this locality above referred to, is ulceration. The orificial disc is granular, bounded externally by a well-defined border, more or less elevated. When the surface is covered by a glutinous, ash-coloured secretion, and more or less excavated, primary syphilis may be suspected: this, however, can be readily ascertained by means of inoculation. More frequently the ulcerated surface is more or less red and angry, and often very similar to the simple form of ulceration; if, however, the border be raised and wavy, and the cuticular surface of the cervix external to it be of a dark-red colour, variegated or measly, or patched with aphthæ, cracked or excoriated, the woman has, probably, the syphilitic

diathesis, and, if so, is capable of transmitting the taint to her offspring.

6. *Warts* are not uncommonly seen growing upon parts about the orifice and cervix of the uterus. So far as I know, excrescences of this kind, so situated, are not traceable to any other than a specific origin; and I believe there is no phenomenon more certainly indicative of the syphilitic diathesis than this. Sometimes they are seen springing from the surface of the vaginal membrane in different portions of its extent; sometimes from the vulva; around the anus; between the nates and adjacent situations: they all alike indicate the prevalence of the venereal taint, which is liable to be transmitted to the offspring.

The preceding remarks are offered as suggestive of a classification which the observations of others may possibly contribute to complete hereafter. They are derived from facts which have repeatedly occurred and been attentively examined. The subject is doubtless still involved in great obscurity, as there appears to be no absolute test whereby to prove the existence of the syphilitic diathesis, in the male subject at least, where all outward trace of its presence has been obliterated. I have repeatedly examined the secretions of syphilitic patients—the mucous products, the urine, the saliva, &c., both as to their chemical and physical properties, but have failed to detect any constancy in the results. But my practical knowledge in these modes of investigation is too limited to be trusted. I feel assured, however, that it is to the revelations which animal chemistry and the microscope are capable of affording, that we are to look for any positive assistance on this abstruse subject. I have also, in a few instances, examined the blood of

syphilitic patients, respecting which some remarks will be offered in the next chapter.

I will again briefly allude to certain structural changes of malignant aspect,—a subject already mentioned in several parts of this treatise. Some very troublesome uterine affections, manifestly the result of the syphilitic action, have from time to time presented themselves to my notice in form of scirrhus of a most intractable kind, and presenting the usual constitutional accompaniments of the cancerous diathesis. On referring to Mauriceau's work, I find several cases recorded of similar character, which appear to have owed their origin to the venereal taint, and which eventually proved fatal. In the chapter entitled, "Du Cancer de la Matrice," he observes, that the disease in its incipient stage is attended with leucorrhœal discharge of offensive character, and that old gonorrhœal affections materially contribute to its development. "Il peut encore arriver à toutes sortes de femmes, tant aux jeunes qu'aux vieilles, et même aux filles, quoique très rarement. Les fleurs blanches malignes et les vieilles gonorrhées virulentes y peuvent aussi beaucoup contribuer, par l'érosion qu'elles font à la matrice." [1]

The first case mentioned is that marked CXI. A woman, thirty years of age, presented herself to this observer, May 24, 1674, having had, during the preceding twelve months, an offensive and abundant leucorrhœal discharge, accompanied with ulceration of the lower section of the uterus, and a fungous excrescence, the size of a walnut, attached to the internal cervix, from which it protruded. And although its removal by

[1] *Traité des Maladies des Femmes Grosses*, t. i. p. 426

means of ligature appeared practicable, he nevertheless refused to perform the operation, on account of the malignant and consequently incurable nature of the disease. This woman stated that her husband was a debauched character, and had communicated to her the venereal disease, from which her ailment appeared to have taken its rise. The surgeon who had previously had the management of her case had asserted, judging it to be still of a venereal nature merely, that he could effect a cure by means of anti-venereal remedies. Finding that Mauriceau entertained a hopeless opinion, she submitted to the treatment proposed by her former medical attendant, and died shortly afterwards.[1]

The second case is that marked No. CCLXV. He attended a woman, August 20, 1680, in confinement of a still-born child a month before the completion of the natural term. At the lower part of the uterus was an indurated ulcer of cancerous character, from the effects of which she died three months afterwards. She had been confined to bed for four months previous to her confinement, during which time she had experienced continual pain in voiding the urine, with remittent fever; and there had been from time to time escapes of blood accompanying the leucorrhœa. She stated that she had been in this way afflicted about four years, the discharge, with the other attendant symptoms, having continued gradually to augment. The author adds:—"Mais quoique ce fût une femme très-pieuse, je crûs néanmoins, qu'il y avait lieu de soupçonner que ce malin ulcère venait de quelque infection vénérienne, que son mari avait pu communiquer."[2]

The next case (CCLXVI.) occurred January 18, 1681.

[1] Op. cit., t. ii. p. 91. [2] Op. cit., t. ii. p. 219.

The patient was thirty-five years of age, and had a cancerous ulcer on the internal surface of the cervix uteri, which had appeared after a continual evacuation of an offensive secretion during several years, and sanguinolent discharges two months previous to the interview. This patient had been one of questionable morality, and Mauriceau found that she had suffered from gonorrhœa of a virulent character, which he believed had materially contributed to the formation of the malignant change. She died five months afterwards.[1]

Case DXXXV. is dated August 10, 1688, four months after delivery. The patient had a carcinomatous growth occupying the whole lower section of the uterus, and extending to the neck of the bladder, causing a constant involuntary discharge of urine. The author prognosticated a speedy and fatal termination, but the sequel is not mentioned. The offensive and abundant discharge had existed during the whole of pregnancy, and was believed to have been caused by a virulent gonorrhœa.[2]

The fifth case (DLVII.) occurred August 5, 1689. The pains of labour were just commencing, and the patient had voided, for two or three days, a considerable quantity of coloured serosity of a very offensive odour, which circumstance induced the sagefemme in attendance to seek the assistance of the writer. Having made an examination, he found the lower part of the uterus occupied by a cancerous growth; and as this kind of offensive leucorrhœa had been experienced during the whole of pregnancy, he judged the malignant change to be owing to a venereal affection with which she had been previously troubled. The husband had been affected with an erup-

[1] Op. cit., t. ii. p. 228. [2] Op. cit., t. ii. p. 444.

tion about the lips, of venereal character, for some time past. The patient died in a short time after.[1]

The last case recorded is that marked DCXCI., and occurred August 10, 1693. The patient had been troubled with an offensive leucorrhœa two years, which had, during the preceding six months, been occasionally mixed with blood, escaping, from time to time, in form of large coagula. He found the lower portion of the uterus occupied by cancerous ulceration, which had supervened upon an attack of virulent gonorrhœa, of more than twelve years' duration. He remarks that these kinds of ulceration,—which are always incurable, however trifling in appearance they may seem to be,—arise, for the most part, from the same cause; and, being misunderstood by those who are thus afflicted, are liable to be mistaken for cases of simple leucorrhœa; "elles qualifient les vilaines excrétions purulentes de ces ulcères malins, du nom de simples fleurs blanches. . . . Mais il est facile de juger," continues this author, "par l'extrème puanteur de ces excrétions, qu'elles viennent d'un ulcère carcinomateux de la matrice, dont l'orifice interne est pour lors tout skirreux et tout inégal; ce qui se connait aisément par le simple toucher du doigt."[2]

Case XXIX., of cauliflower cancer, recorded in the preceding chapter, was clearly the result of a venereal affection, the incipient manifestation having been a warty state of the cervix uteri.

Mauriceau believes that the only mode of treatment by which amelioration of the symptoms can be effected in these cases is reiterated venesection. "Le plus souverain remède dont la femme de cet âge (during the middle period of life) puisse user pour s'en préserver, et pour se

[1] Op. cit., t. ii. p. 462. [2] Op. cit., t. ii. p. 563.

garantir aussi de beaucoup d'autres incommodités auxquelles elle est ordinairement sujette en ce même temps, est la saignée souvent réiterée, afin de suppléer au defaut de l'évacuation menstruelle, et d'empêcher que le sang et les humeures ne se portent en trop grande abondance à la matrice."[1] The late Mr. White, Surgeon to the Westminster Hospital, told me that Mr. Abernethy had a case of genuine cancer of the breast, which, by repeated abstraction of blood in small quantities by means of leeching, was kept in subjection twenty-two years, and the lady at length died from the effects of another disease. Acting upon this principle, I have succeeded in keeping down a cancerous tumour of the breast during a period of nine years, and the affection has at length disappeared from the part altogether. That the tumour was cancerous there can be no doubt. The patient's mother died of uterine disease of long duration, which in all probability was malignant, as it was attended with profuse, offensive, sanguinolent discharges, lancinating pain, emaciation, and the carcinomatous complexion. Such inference is further strengthened by the fact, that her maternal aunt died of cancer of the breast. The patient's ailment commenced at the age of thirty-two. It supervened after some months, upon a very slight blow, accidentally received on the part where the disease afterwards manifested itself. The tumour was at first isolated and moveable, but afterwards became fixed to the surrounding textures. It was very hard, nodulated, tender to the touch, attended with severe shooting pains, retraction of the nipple, and escape of blood from the mammillary pores.

[1] Op. cit., t. i. p. 428.

CHAPTER IV.

EXTERNAL CHARACTERS OF CONSTITUTIONAL SYPHILIS.

THERE are sufficient reasons for believing that the blood of persons labouring under diseases of this class is in a depraved state from the onset of the attack to its termination; and it is probable that this abnormal condition is due to the addition of some noxious agent, the precise nature of which, microscopical and chemical processes have so far failed to determine. The potency of this morbid principle is sufficiently evident in the effects which it produces,—the perversion, for instance, of the processes of nutrition, the impairment of organic function, disturbance of the fundamental arrangement of the solid tissues, derangement of the health generally, and the consequent abridgment, in many instances, of the natural term of life. But, although too imperfectly understood to be indicated by any term expressive of its precise nature, it may nevertheless be adequately represented by the general denomination of *Venereal Dyscrasis.*

That this abnormal state of the circulating fluid depends upon the addition of some principle not naturally belonging to it, may be inferred from the train of pathological phenomena which its presence determines upon different parts of the body; and such inference is further countenanced by the constant and uniform gradations manifested in the occurrence of certain inflam-

matory, exudative, ulcerative, and exanthematous processes, of a character not seen in any other class of diseases, which supervene at certain intervals, after its introduction into the system. These processes succeed each other with a degree of regularity sufficiently marked to be susceptible of arrangement, by aid of which knowledge their orderly appearance may, with tolerable certainty, be looked for, at least during the primary stages of the complaint. When the primary phasis has gone by,—that is to say, when the secretion of the sores no longer possesses the property of producing a primary sore by inoculation,—the subsequent development of the symptoms is less certain as to time, although equally certain as to the appearance of the phenomena, if uninterfered with by treatment, and to a certain extent if improperly treated. Great dissimilarity exists, however, in different individuals, of adult age especially, relative to the length of time required for the development of the secondary phenomena after the disappearance of the primary symptoms in those who have experienced the disease in its acute form, as well also as in infants who have inherited the secondary taint, under varying circumstances. This irregularity depends in some measure upon the following conditions, and perhaps upon others of more recondite nature:—1st, the temperament, habit of body, predisposition, state of the general health, and power of resistance which the system may happen to possess at the time; 2nd, the benign or virulent nature of the poison imbibed,—for there seems to exist a notable variation in this respect; 3rd, the stage of the disease existing in the person from whom the taint has been derived at the time of its transplantation, and the remoteness of the primary infection; 4th, the medium through

which it is admitted into the system of another; 5th, the nature and efficiency of the remedies employed in the previous treatment.

In one of Mr. Wallace's cases of inoculation, the symptoms appeared on the 21st day; in two, on the 28th day; and in another much later, the experiment having been judged a failure, when at length characteristic tubercles appeared, and were followed by the usual phenomena. In one of Dr. Waller's experiments the symptoms appeared on the 25th, in the other on the 34th day.

Contracted in the acute form during pregnancy, the syphilitic poison is quickly conveyed to the fœtus *in utero*, upon whose system its destructive tendency is speedily manifested. Out of two hundred and fifty-six deliveries of syphilitic women in my own practice, one hundred and ten terminated prematurely at different periods of the process. In five cases the event happened at two months; in thirty, at three months; in thirteen, at four months; in four, at five months; in ten, at six months; in thirty-nine, at seven months; in sixteen, at eight months. Only two of these were born alive; they were seven months' children. One of them died on the second day, the other a few days later.

Of the remaining cases, amounting to one hundred and forty-six, said to have been at the full term when delivery took place, sixty-three died at the following ages:—twelve during the first week; two in the second week; one in the third week; five in the fourth week; eight during the second month; six during the third month; seventeen during the second quarter of a year; three in the third quarter; one in the fourth quarter; seven during the second year; and one in the third year of life. A few were still-born, and a considerable

number of those who survive are still infants, a large proportion of whom may probably not live beyond the period of early childhood.

Statistics on this subject have accumulated since the above statement; but, as they all tend to the same conclusion, it is judged needless to add them.

A primary syphilitic affection received during pregnancy, however, is not necessarily fatal to the offspring. If suitable remedial measures be early adopted and vigorously carried out, the cure may be accomplished both in mother and fœtus, and delivery be delayed until the completion of the natural term. No danger need be apprehended to the fœtus *in utero* from the employment of what are here denominated vigorous measures. Whatever the mother, as a general rule, can conveniently bear in the way of treatment, the fœtus can with impunity bear also. The same proposition may not obtain, however, in the same way, in cases where no treatment is adopted in this class of diseases, but rather the converse of this would obtain. The mother might recover, to certain extent, without treatment, or under the employment of non-specific measures, the poison being thus concentrated upon the fœtus, whose destruction would be almost inevitable.

And although there appears to be a constant endeavour in the system to expel the poison through the emunctory organs, its power of increase seems generally to be predominant over the natural antagonism: so that the local determinations from time to time attempted are to be viewed as indicative of a state of the blood surcharged with the principle of disease, rather than as sanative crises merely. The organs most susceptible of secondary syphilitic action, and through which its

expulsion from the system is commonly attempted, are those of generation and the skin: in the male subject the latter, in the female the generative organs, seem to be selected by preference in the two sexes respectively. In the infant, in whom the generative organs are organically inactive, the manifestation is to be looked for on the cutaneous surface principally, in both sexes.

The uterus at all times, after the crisis of puberty, performs the office of an active emunctory, and during pregnancy this function is exercised by it with greatly increased activity. Not only is a large quantity of the maternal blood disposed of for the sustentation and growth of the new being; but the neighbouring organs also receive an excessive amount of this fluid, which the efficient discharge of the gestative function necessitates. Moreover, the mucous secretions of these parts, as well as those of the urinary tract, are usually augmented, so that during the period of utero-gestation the circulating current is directed in an especial manner upon the pelvic viscera and parts associated with the portal circulation. It need not appear surprising, therefore, these circumstances taken into account, that constitutional syphilis should, in the absence of external signs of its presence, manifest itself in the uterus in the manner alluded to in the latter part of the preceding chapter. Nor is it strange that the contents of the uterus during pregnancy should be the special depository of any principle of disease of specific nature with which the blood may happen to be charged, such principle having a constant tendency to increase.

Lues venerea, even in its present modified form as compared with the devastating effects which are said to have resulted from it during its early history, has still a

progressively destructive tendency. The idea of its disposition to wear itself out, independently of treatment, is, I believe, altogether fallacious. According to my own experience, the primary symptoms of syphilis will undoubtedly disappear under the employment of a mild plan of treatment, and in some constitutions they will disappear in the absence of special treatment, due attention to hygienic regulations being observed. But the morbid principle is not therefore extinguished. The taint may remain dormant in the system for a length of time—even for a number of years; but at some period, under favouring circumstances, it is liable to reappear in characteristic form in the majority of cases; or, should a predisposition to any other form of disease prevail, this agency will tend to hasten the development of it by its power of impairing the resisting tone of the system, so as to render the operation of such pre-impending malady more rapidly destructive in its effects.

The syphilitic constitution appears to be pre-eminently disposed to affections of the skin, disordered states of the brain and nervous system, synovial inflammation, rheumatism, chronic affections of the bones, joints, and some of the fibrous tissues, disease of the kidneys and lungs, chronic abscesses, and derangement of the absorbent system, resulting in dropsical effusion.

When the mother experiences a primary syphilitic affection during pregnancy, if the complaint be not actively and efficiently combated, the child is almost certain to perish *in utero*. In cases where the primary affection has existed a short time before conception, and has been imperfectly cured, destruction of the fœtus *in utero* is almost equally certain, in the absence of additional curative measures. If the infection be derived from one labouring under the active stage of secondary

disease, either at the time of conception or during the early periods of pregnancy, the destruction of the child *in utero*, though less certain, is nevertheless to be apprehended.

The cases of constitutional syphilis in the female most frequently brought under notice are those in which the mother has not experienced any cutaneous manifestation whatever of its existence. For the most part, however, it may be ascertained that she has had a leucorrhœal discharge, attended by a train of sympathetic disturbances consequent thereupon; but this discharge is almost invariably confounded with augmented mucous secretion of simple nature, and, although inconvenient to the patient to a certain extent, it soon comes to be disregarded. Inattention to this circumstance is a blameable oversight. In chemical and physical properties, this product exhibits, in health and disease, great diversity, like that found to obtain in the urine; and the pathological conditions connected therewith are of no insignificant importance. It is not here proposed that chemical analysis should be employed as a means of diagnosis. My wish is simply to direct attention to this fact, namely, that purulent and sanious discharges do not, so far as I know, proceed from healthy structure; that purulent and sanious discharges are, nevertheless, allowed to exist to a considerable extent, without the notice of the practitioner having been solicited thereto: even in cases where his attention may have been casually directed to the circumstance in question, it is often done in such manner as to induce him to regard the intelligence as unimportant;—and, moreover, that certain sympathetic disturbances of subordinate importance, remotely situated, and which are, in reality, no more than a kind of accidental recognition

of the diseases whose existence and locality are thus broadly indicated, have also, through a succession of years, been allowed to be treated, by external and internal remedies, and by a variety of methods, as diseases of a totally different nature. I speak from a knowledge of facts derived from the best of all sources.

Of the forms under which syphilis is liable to manifest itself, the first and most important, because the most frequent and characteristic, are affections of the skin. These, as they are commonly met with in the adult, have been described and classified by Cazenave, to whose learned work, *Des Syphilides*, the reader is referred. In infancy and childhood, however, these diseases present certain points of difference, which, although difficult to delineate intelligibly, are nevertheless sufficiently striking to the eye of one accustomed to see them. They are met with under the following forms, arranged in the order of their frequency:—1st, exanthemata; 2nd, squamæ; 3rd, papulæ; 4th, tubercula; 5th, pustulæ; 6th, vesiculæ; 7th, pemphigus.

1. The first of these is liable to occur under several distinct forms, the most frequent of which is that of *roseolous blotches*. They first appear about seven to twenty days after birth, and attack, with almost equal frequency, the face and breech—often both these parts simultaneously. One or two blotches first come out: in a few days the whole features will be occupied; and they afterwards extend, but more thinly scattered, to the neck, chest, and extremities. The eruption assumes, from the beginning, the form of circular patches of different dimensions, varying from the eighth to half an inch in diameter, of a dark-red colour, at first distinct, but afterwards becoming, in some situations, confluent. If unchecked by

treatment, the patches soon increase in elevation, having a raised and defined boundary; and at this stage they assume in some respects the character of the flat tubercle; and at a later period the cuticular covering becomes minutely divided, separating in form of furfuraceous scales. In other instances, the blotch becomes coated with a thin incrustation, which, on separating, leaves a glistening, irritable-looking surface.

Another variety of exanthema consists in broad erythematous patches, of a dark-red hue, occupying the vicinity of the mucous orifices principally, but appearing also on other parts of the body. Its most common situation is the circumference of the anus, that of the vagina, the mouth, nose, eyes, about the ears and neck, and sometimes at the ends of the fingers. Upon the surface of these blotches, in some situations, especially that surrounding the anal orifice, may often be noticed, very thinly scattered, small papular elevations, which generally remain unaltered, both as to number and size, for a considerable time. This form of complaint usually comes on a few weeks after birth, and invariably supervenes upon a secondary affection in the parent, for the most part of long standing.

A third variety appears in form of a mere efflorescence, having all the external characters of measles, but being of a darker colour, and confined to the nates, thighs, and lower part of the abdomen. This eruption is sometimes congenital, as happened in Case XXI. It commonly terminates in general anasarca, and is indicative of an old and severe syphilitic affection in one or both the parents. It may be appropriately named rubeola syphilitica. It does not, however, begin to subside on the fourth day, like rubeola, but continues for a great length

of time, and consequently is essentially different from ordinary measles. It is not often fatal.

Each of these forms of eruption is commonly attended, at an advanced stage, with stomatitis and mucous disorder generally, which constitutes, for the most part, the immediate cause of death.

2. The *squamous* eruption, when of syphilitic character, arises in the children of parents, one or both of whom have previously suffered from genuine syphilis which has been inefficiently treated. The leprous variety commences in form of papular patches situated on the cheeks, hands, and feet. At first, a dark-red spot is noticed, which, if closely examined, will be found to consist of one or a congeries of small papulæ. Each papule is early covered by a dry scale, which shortly becomes detached at its circumference: it soon separates altogether, leaving a surface at first red and glistening, which in a short time shrinks and grows pale. But before the complete separation of the cuticle from the first spot, a circular row of papules springs up around the original one, each having a separate incrustation, which in like manner falls away, and is succeeded by another row still more external, and thus the spot increases in diameter, becoming at length confluent with others that may be situated in the vicinity. The disease thus assumes a serpiginous aspect, although very different from tuberculous serpigo, properly so called. Its most common situations, in infancy, are the face, hands, and feet. In the adult, it seldom occurs on the face, but is generally confined to the hands; and it may be here noticed, that there is scarcely an outward symptom which is more certainly indicative of the presence of syphilis in the constitution than this. The lepra manum and the lepra pedum

of infants does not, generally speaking, assume that decidedly annular form which is seen in the adult: it is usually more oval, and the patches are more numerous, especially on the sole of the foot; and they are more liable to become confluent.

Psoriasis is a squamous affection, which, in the simple form, is seldom a disease of early infancy; but when of syphilitic character, is frequently met with at this stage of life. It usually presents itself in form of isolated patches, of a deep-red colour, circular in shape, from two to six lines in diameter, occupying the nates most frequently, but affecting also the knees and ankles, and, less frequently, the face. The cuticle covering them becomes thickened and dry, concreting into crusts, which are of greater thickness and firmness than those of lepra. There is this marked difference between the two:—in psoriasis, the centre of the blotch is elevated; in lepra, the centre is depressed; in psoriasis the whole patch is covered with one entire crust, the margin of which is usually fringed, white, and early separates from the surface; in lepra, the centre of the blotch forms itself into a thin crust, which early separates altogether, leaving the subjacent skin smooth, level, and of a bronzed aspect, and is succeeded by a circle of distinct scales of like appearance, which, on their decadence, are again followed by a similar ring, externally situated: thus the patch goes on increasing in size, from the centre externally. In some instances, psoriasis, on the hands and feet, assumes a very troublesome character. The ends of the fingers, especially about the roots of the nails, and the palmar aspect of the fingers at the flexures of the joints, and the surface between the root of the thumb and the hollow of the hand, become inflamed and scaly, and at a later period

these parts are traversed by fissures more or less deep and very painful. A similar variety is witnessed on the lips, which become puckered, and often divided by fissures, which frequently bleed; and the anus is in like manner liable to the same kind of affection.

A fissured state of the rectum at its lower extremity, immediately within the sphyncter ani muscle (the gerçure of French authors) is a common sequel of syphilis. This very troublesome affection consists in ulceration between the horizontal folds of the rectal mucous membrane, just within the verge of the anus. It may occupy the entire circumference, or only a section of the gut, and is prevented healing by the action of the sphyncter muscle and the frequent presence of the fæces. The act of defæcation is performed, under these circumstances, with great suffering. It is most effectually relieved by division, with the bistoury, of the sphyncter muscle. It may be cured also by the introduction of a suppository, composed of one grain of morphine, a quarter of a grain of nitrate of silver in powder, and five grains of resin ointment. This is the dose for an adult.

3. The syphilitic *papular* eruption occurs commonly in groups of different dimensions, circular in form, and of a dark-red colour. They infest the face, forehead, neck, scalp, and limbs, but are not seen on the breech so frequently as in other situations. They soon become covered with furfuraceous scales, constituting the variety known as *lichen syphiliticus*. It is usually indicative of an old affection in the parent, and at an advanced stage is liable to be attended with stomatitis. The large isolated papule, frequently followed by ulceration of the throat, exostosis, iritis, &c., is, I should suppose, peculiar to adult age, as I have not once met with it in infancy.

4. *Tubercular* eruptions are seen under several well-characterized forms. Of these I have met with four distinct varieties, which may be enumerated in the order of their frequency:—

a. The flat tubercle is exceedingly common. In its earliest stage—which often escapes observation—it presents itself in form of distinct papules, extremely small, in shape not conical, as papules usually are, but compressed and glistening. This quickly extends, becoming an unsightly blotch, flat, shining, of a coppery hue, elevated above the surrounding surface, having a defined boundary, and being free from irritation. It is of considerable thickness, as the peculiar colour does not disappear under pressure of the finger. It generally occupies the face and nates, from which regions it usually extends to other parts of the surface. These characters appertain especially to the infant. In the adult female it is almost entirely confined to the vulva, the vicinity of the anus, the breast, and the face; and in the male, although comparatively rare, is nevertheless sometimes seen to break out on the arms and face. It is very liable to spread and become confluent, forming a variety of serpigo. This extension is generally the consequence of neglected or inactive treatment. The serpiginous tubercle, however, is by no means frequent in early infancy: it more commonly happens at a more advanced period of childhood, in the event of a second or third relapse of the disease, in consequence of the first outbreak having been inefficiently treated. Or it may occur in a first attack, taking place after the period of suckling, in cases where the taint in the parent was of ancient date; and it was met with in the offspring of a parent afflicted with sycosis, Case XXIX. In the adult it is generally the remains of

an old affection, or the result of inoculation contracted at "second hand." See Case XXIII.

b. Cazenave describes a kind of tubercle occasionally seen in the adult, which is not uncommon in infancy. This is a tubercular elevation which first appears at the angle of the mouth, or at the junction of the wing of the nose with the lip. When of a dark-red colour, and verrucous on the surface, it constitutes a very certain indication of the presence of the venereal poison in the system. It first comes out as a soft, flattened vegetation, which soon increases to the size of a split pea, and becomes divided by an ulcerated fissure running in the direction of the lips. It does not always appear as the first announcement of the presence of syphilis; but when it does so, it is soon followed by other unequivocal symptoms. I have witnessed a similar phenomenon, however, in a child eighteen months old, in delicate health, whose parents could not be suspected. The absence of the specific tint and of the verrucous aspect of the tubercle were sufficient to indicate its simple nature; but, for the sake of safety, I interrogated the father, a gentleman of good sense, whose assurances were sufficient to confirm the belief in its non-specific character. Its disappearance without treatment confirmed the truth of his statement.

c. The perforating tubercle is a very destructive kind of ulceration, always denoting an aggravated state of disease in the parent. So far as I know, it does not appear in the primary stage of secondary disease—that is, as a first announcement of a secondary affection; it comes on at an advanced stage, when the powers of the system are visibly failing. At first, the tubercles are slightly elevated, remarkably defined, and without sur-

rounding inflammation or redness. They soon become depressed and gangrenous, and with great rapidity destroy the whole thickness of skin upon which they are situated, as far as the muscular tissue beneath, which structure does not seem to be susceptible of the ulcerative action. The orifice formed by these is a clean perforation, as if the absent tissue had been removed by means of a punch. See Case XXV., γ. I have seen the same form of disease also occupying the lower extremities of the adult.

d. Another form of syphilitic tubercular disease occurs in the infant at birth. The only instance which I have seen of this kind happened in the offspring of a father who had experienced a very mild attack of the disease some months previous to its birth, the mother having been free from external symptoms. The child, full grown and of healthy appearance at birth, had a number of distinct tubercles the size of peas, hard, free from pain, of a purple colour, and equally distributed over the trunk of the body and extremities. They amounted, probably, to eighty or a hundred in number. At the age of five weeks the patient began to be affected with stomatitis, which merged in fatal diarrhœa. The mother had borne six children previously, all perfectly healthy.

5. *Pustular* syphilis is perhaps a less frequent occurrence in the infant than in the adult. It is said to appear under several forms, all which probably represent but different stages of the same affection. It may be met with presenting, during infancy and childhood, all the varying phases which this class of eruptions is capable of assuming at a more advanced age, from the minute lenticular and the larger isolated impetiginous pustule, to the confluent pustulo-crustaceous impetigo, and the more

inveterate form of deep ecthyma. It generally indicates an aggravated form of disease in one or both the parents from whom it was derived.

The lenticular variety and the superficial ecthyma are the two forms of pustular disease most commonly met with during the first few weeks, or perhaps during the first year of life. The first-named may exist at birth, an instance of the kind having fallen under my own notice. The second is liable to appear at periods varying from a few days to a few weeks. Impetigo, on the contrary, does not so frequently occur as an initiatory symptom in very early infancy, although I have at present under treatment a syphilitic infant only seventeen days old, who has the scalp nearly covered with well-marked impetiginous pustules. Its earliest accession, however, is generally about the teething period and during several years afterwards, being usually consequent upon an imperfectly cured squamous, exanthematous, or other form of syphilitic affection, which had existed in earlier life. At three or four years of age and upwards, it is liable to degenerate into a more diffused and irregular eruption, infesting parts of the hairy scalp, especially at its margins, and becoming peculiarly revolting and intractable. The inveterate ecthymatous pustule is more frequently seen in the adult than in infant life, occupying the extremities, both upper and lower, but principally the latter. A very severe form of it, having the thick, brown, elevated crust, and leaving an angry ulcer on being detached, is liable to affect infants and young children, in whom it is almost entirely confined to parts about the features and scalp.

6. The existence of *vesicular* eruptions, as a form of lues venerea, was long doubted. Cazenave and Schedel

appear to have been the first to establish this fact beyond question. It may seem singular that this form of disease should not have been earlier recognised; but there is no doubt that it was intended to be included among the various pustular infections (pustules de diverse forme) and the melicerides (pustules exuding a clear honey-like fluid) of De Hery.[1] As an inherited disease, I have witnessed it under three distinct forms,—herpes squamosa, variola and varicella, and impetiginous eczema, all of syphilitic origin. Cazenave mentions two additional varieties occurring in the adult, which I deem to be merely aggravated forms of herpes.

The flat herpetic vesicle, degenerating into the scaly form, occurred, in Case XVIII., at birth, and was the result of gonorrhœa in the parents. In some instances, the herpetic eruption commences by a multitude of miliary vesicles, equally distributed, or in clusters, and terminating in thin dry crusts which fall off in furfuraceous scales. The varicella and variola syphilitica were seen in Cases XVI., XVII., and XXVI., at different periods, and also in one of the individuals mentioned in Case XXIII.; and impetiginous eczema I have witnessed in a considerable number of instances, which it would be tedious to particularize.

7. *Pemphigus,* although a vesicular disease, forms a distinct order in Bateman's classification, under the name of Bullæ. This author, as well as Willan and Plumbe, regard pemphigus as being essentially a chronic disease. There appear to be reasons for believing that it occasionally occurs as an acute affection, being accompanied by the usual phenomena of fever, and having a period varying from one to three weeks. This was

[1] *Méthode Curatoire,* pp. 10, 13.

satisfactorily established by Gilbert,[1] and since, by the observations of Cazenave and others. Two writers of recent date have described pemphigus as occurring under other circumstances. M. Krauss was the first to notice the affection in new-born children;[2] and the subject has been since considered in a separate treatise by M. Paul Dubois, who considers it as a sequela of the syphilitic taint.[3]

It is extremely probable, as has been already noticed in a preceding page, that those cases of desquamation of the cuticle so often seen in the still-born, and sometimes in the live-born children of syphilitic parents, whether occurring prematurely or at the full term of utero-gestation, are the result of a variety of pemphigus existing *in utero*. I have seen a considerable number of such instances wherein the vesicles were still entire at birth, especially on the scalp and about the neck, as well as on other parts of the body. In most cases, even where the cuticle is extensively detached, as on the abdomen, the separation is bounded by a defined margin, and this is still more noticeable on the palms of the hands and soles of the feet. It is not unreasonable to suppose that these extensive desquamations had their origin in limited pemphigous vesications, and that their rapid extension was due to the peculiar looseness of the cutaneous textures during the period of intra-uterine life, the adhesion of the cuticle to the cutis vera becoming much more firmly established by the agency of the atmosphere, and their separation consequently much less readily effected. When pemphigus exists at birth, the child living, it has almost

[1] *Monographie du Pemph.*, 1813.
[2] *Dissertatio de Pemphigo Neonatorum*, Bonn, 1834.
[3] *Dict. de Méd.*, art. Pemph.

invariably a fatal termination in a short time. It has been remarked by Cazenave, in referring to the inference deduced by M. Dubois, respecting the specific origin of pemphigus, that in these cases we do not usually observe the other indications of the syphilitic taint, namely, the dry, pale, shrivelled skin, constituting that senile appearance commonly indicative of the presence of lues venerea. But this I do not deem a valid objection, as the peculiar aspect referred to is scarcely ever noticed at birth, however strong the taint may be: it seems to require the contact of the atmosphere for a length of time before this feature can be characteristically developed. That atmospheric contact exerts a powerful influence on the cutaneous surface, under certain morbid conditions, is seen in cases of burns; the injured parts, after the healing process is complete, remaining perfectly natural and shapely so long as they are kept covered; but so soon as they become exposed to the atmosphere, contraction commences.

The existence of *fœtal pemphigus* (pemphigus *in utero*), or its development at birth, takes place for the most part in the offspring of those mothers who have suffered severely from primary syphilis during pregnancy, or who have experienced an acute attack of the disease in secondary form. It may occur, however, in the offspring of those who, although having the taint in a mild or latent form, possess the hæmorrhagic diathesis.

But the disease breaks out also in infants, whether of strong or of weak constitution, at subsequent periods, in those whose parents have received the infection—to use Hunter's expression—at third hand, as in Case XXIII. At this period it generally runs into rupia, but may also be followed by disastrous consequences.

Intimately allied with this form of disease is another

complication of infantile syphilis, which cannot fail to be of considerable interest. I allude to an inflammatory affection of the genital organs, followed by sloughing ulceration, which is liable, especially in the female infant, to assume a destructive aspect. In the male, though comparatively rare, it is, nevertheless, occasionally met with, commencing with balanitis, which may be followed by destruction of part of the prepuce. In the female the pudendum becomes swollen and phlegmonous. In a short space of time, one or a number of vesications, which sometimes present the character of pemphigus, appear on its surface, and, with great rapidity, terminate in broad patches of ulceration,—sometimes in sloughing. Examples of the kind, recorded in the preceding pages, have been already commented upon. (Refer to Cases II., V., IX., &c.)

At page 116 a few remarks were offered respecting a similar form of disease described by the late Mr. Kinder Wood, in a paper published in one of the volumes of the Medico-Chirurgical Society, and which bore a striking resemblance to some cases which occurred a few years previously in the Manchester Infirmary. One of these, which had nearly occasioned the execution of an individual erroneously criminated, was described by Dr. Percival. The patient, Jane Hampson, four years of age, was brought to the hospital February 11, 1791, having the external organs of generation highly inflamed, sore, and painful; and it was stated by the mother that the child was as well as usual until the preceding day, when she complained of pain in voiding the urine. The patient had slept several nights previously in the same bed with a boy fourteen years old, and had complained of having been hurt by him during the night.

A suitable course of treatment was adopted, but the complaint gradually increased in severity, and the child died on the ninth day after its admission. The case became the subject of juridical inquiry. On a *post-mortem* examination being made, it was ascertained that no disease existed in the thoracic or abdominal cavities, and the medical witness having consequently stated that death had been caused by external violence, the jury returned a verdict of wilful murder against the boy with whom deceased had slept. A warrant was therefore issued for his apprehension; but he had absconded—a circumstance which was considered as a confirmation of his guilt, and added materially to the weight of circumstantial evidence alleged against him. "Not many weeks had elapsed," says Mr. Wood, the medical witness, "before several similar cases occurred, in which there was no reason to suspect that external violence had been offered, and some in which it was absolutely certain that no such injury could have taken place. A few of the patients died; though, from the novelty and fatal tendency of the disease, more than common attention was paid to them. I was then convinced that I had been mistaken in attributing Jane Hampson's death to external violence, and I informed the coroner of the reasons which produced this change of opinion. The testimony I gave was designedly made public, and the friends of the boy, hearing of it, prevailed upon him to surrender himself.

"When called to the bar at Lancaster, the judge informed the jury that the evidence adduced was not sufficient to convict him; that it would give rise to much indelicate discussion if they proceeded on the trial; and that he hoped, therefore, they would acquit the prisoner

without calling any witnesses. With this request the jury immediately complied."[1]

Too little is said respecting the histories of the preceding cases, and those of Mr. K. Wood, to lead to any satisfactory conclusion as to their causes. The examples which have fallen under my notice have taken place in children whose parents were known to have suffered from syphilis in some form previously. This was satisfactorily ascertained in all except one instance, Case IX., and even in this apparently exceptional case there were the strongest grounds for believing that the phenomena owed their existence to the prevalence of the same morbid principle.

Patches of ulceration, less severe and less dangerous, perhaps, than the preceding, but yet in character not very unlike the sloughing ulcer of the pudendum, are not uncommonly met with in other situations. They occur on different parts of the surface, but most frequently in the flexures of the body, as in the groin, the ham, near the ankle, the elbow, and at the junction of the neck with the shoulder on either side. They may commence by vesications, or by mere chafing and excoriation—known as intertrigo. The accompanying redness is generally very different, however, from that of simple intertrigo in being of a deeper colour, and limited by a distinct boundary line, which also marks the extent of the destruction which follows. The character of the ulcer is peculiar. Its surface is covered by a grey coating of glutinous purulent secretion, there being no appearance, during the first days, sometimes for many days, of granulations. The edges become somewhat raised and thickened, occasionally overhanging; and very often

[1] Percival's *Med. Æthics*, p. 231.

warty vegetations may be seen to spring up from the surface of the sore, especially from the deep part of any fold of skin which traverses it. The gummy sore, described by M. Ricord as indicative of tertiary syphilis, is commonly seen in children about the forehead, the hairy scalp, the neck, and sometimes on the nates.

Warts, or *verrucæ*, although not always of specific origin, are nevertheless very commonly a sequence of syphilis, and especially when met with in certain localities. When situated on the sound skin, as on the hands, feet, or some parts of the face, they may be of simple nature. But their situation on mucous surfaces, near the mucous orifices, or upon the middle of patches of ulceration, should be looked upon with suspicion, and this is a sufficient guarantee for the institution of a minute inquiry as to the history of their origin. In psorophthalmia the granulations are sometimes luxuriant, and have a verrucous aspect: this, in some instances which have happened in my practice, has been traceable to the syphilitic taint. I have very frequently met with warts on the labia uteri, and in a few instances upon the upper part of the vaginal membrane, in cases where no other indications of the syphilitic taint existed except these and discharge of a certain character, and where its presence would not have been suspected by me had the disease not been developed in the offspring.

To the sense of smell, the secretion from warty vegetations is generally sickly and offensive, and especially so when they are situated within and about the vulva. This circumstance alone is one of significance, and should lead to further inquiry.

Cracks, fissures, or rhagades of the skin, occupying most commonly the joints of the fingers, palms of the

hands, the lips, sides and septum of the nose at its entrance, the angles of the eyes, and other situations, are among the sequelæ of syphilis both in infancy and adult life. These symptoms are a degenerated form of psoriasis. Sometimes the ends of the fingers are swollen and painful, especially around the nails. Examples are mentioned in Cases XXIV., XXXII., and elsewhere. They are curable by constitutional treatment.

Alopecia, falling of the hair, is not an uncommon result of syphilis at any period of life. In infancy it is observed to accompany several forms of cutaneous disease, most frequently perhaps those of psoriasis, and of impetigo, even although these eruptions should not infest the scalp. The baldness often appears in circular or oval patches of various dimensions, the skin being either smooth and glistening, or furfuraceous. In cases where the entire head is bald from this cause, should the treatment be unsuitably directed,—should the disease, instead of being looked upon as a constitutional affection, be regarded as one of simple or local nature, and the remedies limited to those of local application merely, great difficulty will be experienced in restoring the growth, and even should it re-appear, the crop will be scanty, irregular, and of bad colour and texture. I treated a gentleman for this form of disease, who had endured a long and very varied medication, both homœopathic and heteropathic. I had previously attended his wife in several unsuccessful pregnancies, never suspecting the existence of any specific taint in her. The baldness had commenced in small patches; but at the time of his application to me, there were only a few small tufts of hair growing on his head. It appeared that he had never

suffered under venereal symptoms since marriage, and only once before; this was in a very mild form, and was speedily cured. I subjected him to a course of specific treatment, and the hair was perfectly restored, without any local application. I have since attended his wife in confinement of a living child, who survives, and has excellent health.

Ozæna is a disease perhaps as frequently of syphilitic as of simple origin. It consists of a species of ulceration within the nose, attacking for the most part the septum nasi. It is attended with an offensive and excoriating discharge, which is generally sanious, sometimes sanguinolent, and is usually accompanied with tumefaction of the surrounding mucous membrane, not only that portion of it which immediately surrounds the ulcer, but often of the whole extent of the Schneiderian membrane, first on the affected side, then on the other. It is accompanied with obstruction of the nose, rendering the nasal respiration noisy and difficult. This impediment becomes especially troublesome in infants at the breast, who are in this manner rendered incapable of holding the nipple in the mouth longer than a few moments at a time. From time to time a dark brown scab is thrown off, and from the temporary relief which the child experiences after this exfoliation, the mother fondly supposes the mischief at an end. But hope is doomed to be disappointed under these circumstances. Another incrustation soon forms, perhaps more bulky than the preceding one, and the annoyance is increased. Syphilitic ozæna occurring during the first few weeks of life, if of syphilitic origin, is indicative of an old and inveterate affection in one or both the parents, or it occurs in children who have suffered in early infancy from inherited syphilis which has been

inefficiently treated. Inveterate ozæna is liable to become complicated with angina, which has not unfrequently a fatal termination in infants. This happens when the disease, imperfectly treated, is allowed to encroach upon the fauces and larynx.

Stomatitis signifies inflammation of the mouth and fauces: it not unfrequently accompanies or supervenes upon ozæna, in syphilitic patients. More commonly it is an attendant upon the exanthematous, the papular, but still more frequently upon the tubercular eruption, especially if situated about the lips or nose. It commences with tenderness of the mouth, which soon becomes excoriated, then aphthous. In some cases it implicates the whole mouth, and is extremely liable to be extended to the stomach and bowels, frequently proving fatal by diarrhœa, as is instanced in a number of cases recited in the second chapter, preceding. Instead of taking the course of the œsophageal tract, it sometimes implicates the larynx and the lungs, terminating in laryngeal phthisis, as in Case XXV., δ.

Iritis, the result of syphilis, I believe not to be very common in infant life. *Conjunctivitis* and *sclerotitis*, sometimes of a serious character, are, on the other hand, forms of disease by no means unfrequently met with; but the last-named of the two is decidedly the more rare, and is preceded by and attended with phenomena of a different order from those of the other. Conjunctivitis, in form of purulent or gonorrhœal ophthalmia, is very frequently seen. It generally comes on about the third day after birth; but it may appear at more distant periods. When of a gonorrhœal nature, it has been supposed to be due to direct application of the specific secretion to the eyes of the fœtus during its transit through

the pelvis. It is certainly possible that this may have been the cause in some instances, but it undoubtedly occurs as the result of a constitutional taint with perhaps equal frequency.

In a paper on Purulent Ophthalmia in Infants, read at the meeting of the Provincial Medical and Surgical Association at Derby, August, 1847, and published in the Journal of that Society for October of the same year, I gave a resumé of the histories of thirty-five cases intended to show the date of commencement of the disease after birth, the condition of the organs of the mother, and the result of treatment in each case, with some other particulars. In that paper it was stated that the disease had occurred in the offspring of parents in whom a particular morbid condition of the uterus had been ascertained to exist previously to the birth of the child. It may with reason be presumed, therefore, that the ophthalmic affection in its *primary* form might have owed its existence to the direct application of the morbid secretion to the affected organ, and that the inoculation took place during the transit of the infant through the vaginal canal in the process of parturition.

"*Secondary* purulent ophthalmia appears, more remotely, to be dependent upon the same agency. The case marked No. 18 [in the paper alluded to], which was said to have commenced at the age of three weeks, was attributed by the parent to the application of cold. The child was brought under treatment when ten or eleven weeks old. Its mother had then puriform leucorrhœa, with all the sympathetic disturbances usually attendant upon uterine disease, the symptoms having existed in her upwards of eighteen months previously. She had fissured ulceration and induration of the cervix uteri. It

is highly probable that the fœtal system becomes in such cases imbued with the morbid poison during the period of its intra-uterine life."[1]

It was further shown, that of the thirty-five cases, eight occurred in the offspring of mothers who were known to be labouring under secondary syphilis or the remains of gonorrhœa. I have now good reasons for believing that a great majority of the number were in like manner infected, and that instead of eight, a much larger proportion of these cases were due to a syphilitic or gonorrhœal taint. Of late, in almost all cases where careful inquiry was instituted, it was found that the parents had suffered from a venereal affection some time previous to the occurrence. In such cases, even where the eyes of the infant had been carefully cleansed immediately after birth, the disease still appeared in characteristic form, at periods varying from three to thirty days and upwards after birth.

This opinion is in accordance with the doctrine since promulgated by Dr. Charles William Bell, who says: "The only mucus in the body upon which the gonorrhœal exciter is capable of operating, except that of the urethra, is the secretion of the eye, causing gonorrhœal ophthalmia by its contact. We have remarked upon the inability of this exciter to produce its specific effect on the blood from which its mucus is formed, yet there is some reason to believe that the integral particles of its exciter may circulate in the blood without losing its activity, and produce its specific effect when evolved along with the particular secretions which it is capable of affecting; for it would appear that gonorrhœal matter introduced into the rectum is capable of inducing urethral

[1] *Provincial Medical and Surgical Journal*, p. 536, 1847.

gonorrhœa as well as gonorrhœal ophthalmia without direct contact."[1] Of its origin in this way illustrations are given in Cases XIX. and XXVI.; its prevalence in the usual form occured in a number of instances recorded in the preceding chapter.

Sclerotitis occurs, for the most part, as a sequel of constitutional syphilis in children who have been inefficiently treated, and who have inherited the taint from parents one of whom at least has had genuine syphilis. The scrofulous habit also eminently predisposes to this form of disease. The child will generally be found to have suffered from squamous or tuberculous eruptions at an earlier period. It is accompanied with the highest degree of irritability of the organ, complete intolerance of light, and great constitutional disturbance. The treatment is often beset with many difficulties, and the cure for the most part is very protracted. An instance of the kind is recorded in Case VI.

Constitutional syphilis is less liable to be followed by periostitis, caries, and exostosis in the infant than in the adult; the two last named especially. Periosteal abscesses, however, like those mentioned in Case XXVIII., have several times fallen under my notice. I have no doubt, moreover, that children who have had certain forms of syphilitic symptoms in infancy, are liable to be troubled with pains of the bones of the kind peculiar to this class of ailments in after life, especially during the teething periods, as well as under the existence of some accidental derangements of the system, and that the teeth, particularly the first set, are subject to early decay

[1] On the Causes of Disease. Retrospective Address read before the meeting of the Prov. Medical and Surg. Ass. at Worcester, 1849, p. 44.

in such cases. These affections occur independently of the use of mercury.

The more common mode, however, in which this taint is liable to produce its effects upon the osseous system, is indirectly by impairment of the nutritive functions. In cases of infantile syphilis which have been badly treated, the organs of locomotion, after a time, begin to suffer in an especial manner, while the brain and nervous system become morbidly irritable. The brain is often disproportionately large, and the sensorial faculties abnormally exalted; the muscular and osseous tissues suffering a corresponding amount of deprivation, or even of actual decay. The process of ossification is obviously delayed, as may be witnessed in the state of the cranial bones, the fontanelles, and often even the linear sutures remaining open to a late period. The muscles are attenuated; the joints apparently, sometimes in reality, enlarged. The long muscles especially are liable to become emaciated, while the cylindrical bones are weakened, and a decided case of rickets is determined. Associated with this state we commonly observe a tumid abdomen, due to glandular hypertrophy, with wasting of the rest of the body.

Erythematous stains of the skin, permanent or flitting, are sometimes referrible to an inherited syphilitic taint. They do not so often occur in infancy as in after life. I have seen them exist in the adult, being the result of hereditary derivation, and the taint has been entailed upon the next offspring in form of constitutional syphilis. This fact was illustrated in a case of infantile syphilis which happened under my notice lately. A child, seven weeks old, was brought to me with an eruption on the skin truly syphilitic in its character. The patient

became dropsical, and died at the age of five months. On inspection of the body after death, I found extensive pancreatic disease, but nothing more. The pancreas, which was enormously enlarged, with hypertrophy of its structure, was distended with an abundance of milky fluid. The thymus gland and all the other organs, with the exception of slight enlargement of the mesenteric glands, were quite healthy.

Upon careful inquiry in various ways, the mother could not be suspected of having had any taint of a visible kind, save such as might have been unconsciously communicated by her husband, no outward evidence of which was detectable, except in form of purulent leucorrhœa. The husband, a respectable young man, declared he had never contracted syphilis in any form. But on the testimony of his mother, he had suffered from syphilitic eruptions in infancy, and had ever since had repeated crops of tubercular eruptions on his back from time to time. On the occasion of his interviews with me, when I examined the skin over the whole body, he had a number of tuberculous elevations on his back of characteristic tint, and a large patch of dark erythyma occupying the back of the neck on the right side, which a professional artist delineated. His father was said to have been an irregular character, and to have suffered several times from syphilis.

There is a form of eczema which is continued hereditary, but only, I suspect, when of syphilitic origin. The following case is an example:—E. S., thirty-five years of age, bore her first child when she was twenty-three. The infant died at the age of eight months, extremely emaciated, covered with squamous eruptions, with which it had been afflicted five or six months.

Her second child was born when she was twenty-eight years old, and died at the age of eighteen months, under a precisely similar train of symptoms. The most singular circumstance connected with this case is, that the mother had no appearance whatever of cutaneous disease until twelve months after the birth of her second child. At this date, when she had attained the age of twenty-nine, a condylomatous growth sprang up on the left cheek, which was soon after followed by others on each side of the face. About the same time several small eczematous vesicles formed on the lower eyelids and about the tip and wings of the nose, which, soon after bursting, were covered with dark brown incrustations. Ever since that period, a space of six years, the features have been disfigured with this revolting disease, which has resisted almost every variety of medication. It still exhibits the same form and arrangement which it has borne during several years past. On the eyelids and lower half of the nose the eruptions are confluent; between these two situations, on each side of the bridge of the nose, extending upon the malar portion of the face, are several isolated blotches, and on other parts of the features there are six or seven condylomatous elevations of different sizes, one of the largest being uneven on its surface, and minutely verrucous.

The father of this patient had a similar affection of the face for many years. One large patch of eruptions on the cheek below the eye became a prominent spongy growth, and often bled profusely. This was said to be a bleeding cancer, of which he died at the age of forty-eight from the effects of the exhausting hæmorrhages which flowed from it. Her brother had a similar complaint, which made its appearance at the age of thirty,

continued several years, and was eventually cured, showing that the disease was not malignant. Her cousin also, the daughter of her father's sister, experienced the same form of disease, which ended fatally in the same manner as that of her father. The patient's husband cannot be suspected of having any taint about him.

That eczema may have a syphilitic origin Case XXXIII. affords sufficient proof. I have had the family under notice from time to time during several years, so that their history is clear and satisfactory. The parents have suffered from secondary syphilis during several years until a recent period, and their child, born May 2, 1846, I treated in infancy for constitutional syphilis, which, as was already stated, was not radically cured. The eczematous eruptions which infested the head and face at the age of five years had all the characters of venereal disease. Moreover, the last child born to these parents, in December, 1850, had also syphilitic disease in the most marked form, the parents being at that time still uncured.

Rheumatism is frequently a sequel of venereal affections, but I am not aware if the disposition thus created be susceptible of hereditary continuance, independently of other characteristic manifestations. This complication has been noticed by previous writers, of whom Sir Astley Cooper was one of the first. It is most commonly met with as a sequence of gonorrhœa, but it also supervenes upon genuine syphilis. In Case XXVII. it was one of the most prominent symptoms, the patient having but once suffered from chancre, and never from gonorrhœa. I believe that a characteristic distinction is observable in its nature and seat in the two forms of disease respectively. When supervening upon chancre,

it usually affects the muscles and bones; when upon gonorrhœa, its locality is the synovial membranes and ligaments, perhaps also the articular cartilages. It is liable, moreover, to inflict a greater amount of suffering and to entail more serious and lasting consequences after the latter than after the first-named variety of the disease.

In Case XIX. it implicated the left wrist and right knee-joints. That these affections were consequent upon gonorrhœa is sufficiently proved by the history of the case; but this is further substantiated by other circumstances not there described. During the acute stage of these arthritic affections, depletion was had recourse to by means of leeches. It so happened that in the course of a few weeks after the leeching, each leech-bite, without an exception, became converted into a distinct flat tubercle, elevated above the surrounding surface, being of a decided coppery hue, and so peculiar as to attract the notice of the nurse and others who witnessed them, and who made remarks on the circumstance. As these tubercles subsided,—which they began to do only after the use of mercury,—they left bronzed cicatrices, which are now acquiring a peculiar whiteness, and will probably be persistent. I have lost sight of this patient.

The affection seemed to commence in the deep-seated synovial structures, and afterwards to implicate the ligaments. In the knee, where the inflammation was the most severe, although at the onset there was no swelling, redness, or tenderness under moderate pressure, yet the least motion of the limb, especially rotatory movement, was attended with intolerable suffering. When the swelling and outward tenderness which supervened subsided, the joint was still immovable, the least attempt

to rotate the leg upon the thigh in an inward direction being attended with exquisite pain, while rotation outwards was not a painful effort, and the limb was always easy when the foot was allowed to fall externally, in which position it invariably settled itself. The inference is, that the crucial ligaments, and probably the synovial folds around them, were the principal seat of disease.

The preceding are the most common forms of disease noticed as directly supervening upon syphilitic affections. But there are doubtless many other organic and functional derangements due to the same cause, which it would be superfluous to specify. Indeed, I am inclined to subscribe to an antiquated notion, that there is scarcely an organic disease met with, from whatever cause arising, which may not also have its origin in the venereal poison. The author so often quoted in the preceding pages sums up in this way:—When the disease is recent, the phenomena most frequently encountered are eruptions appearing under a variety of forms upon the features and head, or extending over the entire body, and implicating especially the mucous orifices and the emunctories; affections of the urinary organs, consisting in inflammation of the lining membrane of the bladder and urethra, sometimes of great severity and danger, accompanied with an extremely irritable condition of these parts, and rendering them liable to frequent and violent spasmodic contractions of the most painful description; ulcers of the neck of the bladder and urinary passage are spoken of as being of frequent occurrence, and liable to terminate in tumours or sarcomatous formations which are very difficult of cure (aucunesfois s'y engēdre vn Sarcôma ou carnosité de difficile curatiō). Other complications are not seldom

seen to affect the external organs, such as indolent, malignant, and phagedænic ulcers, which are also found to attack the throat, tonsils, palate and mouth, sometimes extending to the bones, which become more or less destroyed, with impairment of the power of speech; to the eyelids, and other parts of the body, resisting for a great length of time the best-directed plans of treatment. "Souuent est cōplicquée auec vlceres cacoethes, malings, chancreux, et serpents, que les Grecz appellēt Estyomeneux, et autres especes d'vlceres en la verge, en la gorge, aux tonsilles ou amygdales, en la bouche, au palais, quelquefois avec corruption de l'os d'iceluy (dont s'ensuit grande deprauation de la parolle), aux palpebres des yeux, et aux autres parties du corps, qui souuent resistent et ne veulent ceder à la plus part des remedes."[1]

It is mentioned by the same author that a number of cases which he treated, especially among females, were complicated with scrofulous swellings, some of which ran into a state of ulceration (strumes ou escrouelles, les vnes vlcerées, les autres non); also with intermittent pains of the head, shoulders, arms, legs, chest, and throughout the whole body, sometimes occupying the joints, or running along the muscles, tendons, fasciæ, and the membranous coverings of the bones. There was frequently loss of hair, not only of the head, but also of the eyebrows, eyelids, and other parts; sometimes a great fluxion of humour from the eyes (ophthalmia) existed, and the nature of the cause of this not being understood, it ended in loss of vision, and in some in erosion of a considerable portion of the eyelids. Other cases were followed by ulceration of the nose, with

[1] De Hery, *Méthode Curatoire.*

destruction of the nasal bones and great disfigurement of the features. "Ie l'ay vue à aucuns meslée auec vne extreme fluxion sur les yeux, et par default d'auoir cogneu la cause, il s'en est ensuivy perdition de la veue, aux autres erosion d'une bo̅ne partie des paulpieres. A d'autres sont survenues des ozenes et ulceres au nez, auecc arie et corruptiō de la substance des os, &c."

When the disease has arrived at the inveterate stage, the pains which before were moveable or intermittent, become fixed and deep-seated, being especially distressing in the night-time. They are most commonly situated about the fore-part of the tibia, the ulna, and summit of the head, and are often accompanied or followed by periosteal swellings, which occasionally run into abscesses, and not unfrequently lay bare the bone, portions of which perish and exfoliate. (Pareillement suruiennent tophes ou noeudz schirrheux, communement appellez nodus, et autres de diverse nature, comme atheromes, et melicerides, souvent carie ou corruption de la substance des os.) The palms of the hands and soles of the feet are especially subject to eruptions of herpes and psoriasis, which become scaly and fissured. Sometimes these affections are found situated on other parts of the body, as the face, head, neck, limbs, and trunk of the body, which they may almost surround: "mesmes souuēt entourent et enueloppent la plus grande partie du membre qu'elles assaillent, quasi comme vne ceincture." It is extremely liable to affect the nervous system, producing irregular muscular action in some cases, in others diminution of sensation and power, resulting frequently in paralysis. It sometimes attacks the joints, producing severe and persistent arthritis of a gouty character, differing from genuine gout, however, in being constantly the same,

having no paroxysms, periods of duration, or measured intervals.—(De Hery.) The articular affections here alluded to are probably such as the one described in Case XIX. I know from observation that they are extremely liable to be followed by anchylosis, which fact alone is sufficient to declare the gravity of the disease.

The injurious effects which lues venerea is capable of inflicting upon the brain and nervous system are manifest in the production of certain disorders of this class. Thus the above-named author instances the case of a man afflicted with lues venerea six years, during the whole of which time he was troubled with epilepsy. Both diseases were cured by the treatment which he employed with a view to the eradication of the first. Syphilis, according to the same author, is liable to degenerate into elephantiasis and lepra, either where no treatment has been employed or where it was too feebly practised. Such sequences are especially liable to occur in persons of intemperate habits. In other instances he has seen a species of slow fever supervene which has terminated fatally in consumption.

Finally, he concludes, it frequently brings into active existence many other diseases to which a predisposition existed, which does not subside until the implanted poison has been extinguished. These complications may, in some, be slight, mild, and of little consequence; in others they are violent and imminently dangerous—"ces symptoms aux vns sont petis, memis, et peu douleureux; aux autres grāds, violents, et auec extremes douleurs, selon les differēces des susdictes." With a view to treatment, it will be necessary to understand and carefully to consider the differences between these two classes of affections, as regards their specific or simple nature, in

order that the remedial efforts may be directed to the cause instead of to accidental phenomena merely.

No one can question the practical value of the statements comprehended in the preceding quotations, more especially the importance of a correct diagnosis in cases of a complicated and doubtful nature. Many cases will occur where it will be extremely difficult to form an opinion, even after the most patient inquiry. Every circumstance should be taken into consideration, including the previous history of each party who can by any possible chance be implicated. And not the statements alone should be relied upon; but also, these being insufficient or unsatisfactory, certain parts of the body liable to specific affections should be submitted to ocular and tactile examination. These precautionary proceedings may not perhaps be necessary in all instances, but they can never be too rigidly practised.

Moreover, there are certain physiognomical appearances connected with the external aspect of the body, as well as with the various morbid phenomena already described, which merit special attention. As was already stated, the skin is wont to lose its healthy bloom, and to assume a tint of a peculiar character. It becomes dry, pale, and more or less shrivelled. The dryness may be best described by contrasting it with the oily condition witnessed on the features in cases of simple acne; it is void of perspiration on the parts commonly exposed to the atmosphere, or if any fluid be transuded, it is probably more largely charged with some of the saline ingredients and the albuminous constituent than usual, the last-named element being unusually abundant in syphilitic blood. The surface is often seen to be furfuraceous. The pallor which it exhibits is very different

from the waxy paleness noticed in the malignant diathesis, and equally so from the transparent pallor of phthisis and anæmic wasting, or the sickly greenish hue of chlorosis. It has a dull, ashy, parchment-like, lustreless aspect, devoid of bloom and of the natural flesh-tint, appearing as if imperfectly cleansed, or like that of one who has been long confined in a dark, impure atmosphere. This is the extreme condition, of course, developed only at an advanced stage of the complaint, but it may often be observed about the temples, eyelids, and lips, at an earlier period, and even so in one of ruddy complexion. By a shrivelled appearance it is not meant that the skin is wrinkled or furrowed in the manner which is usually observed to occur naturally after the middle period of life. It appears to be minutely cracked in various directions, the surface being divided, if closely examined, into a multitude of lozenge-shaped isolations, due, probably, to an altered state of the fibrous structure of the tela cellulosa, with absorption of its fatty material, the skin being condensed, attenuated, and inelastic. Infants inheriting the syphilitic constitution, present none of these phenomena, generally speaking, at birth; they usually begin to manifest themselves during the first week of life, and are always the earliest seen and the most strongly expressed on the parts exposed to atmospheric influence.

The next characteristic feature commonly observed in venereal affections, and possessing a still higher value, in a diagnostic point of view, than the preceding, is the colour of the cutaneous eruptions. This peculiarity has been spoken of by writers from the earliest date of its history. It appears to have been a matter of some difficulty with many to discover an object to which

it could be accurately likened. It was by some denominated a dark-red, brown, bronzed, or livid colour; others compared it to the colour of the flesh of cured ham; Nisbett and Swediaur first designated it a copper-colour, which term was adopted subsequently, and is still preserved. There are many genuine cases of lues venerea, however, especially in infants, where the comparison is by no means applicable. The hue varies according to complexion and temperament, and is especially influenced by the state of the nervous and circulatory forces. It is different also in different forms of eruption, those most nearly corresponding to Nisbett's designation being the tubercular and the areolæ of the pustular varieties. The roseolous blotch also has commonly a decided coppery tint, but is often a shade lighter. Erythema occupying the neighbourhood of the mucous orifices has a dull-red colour, not unlike that of polished mahogany which has been some time in use; and the same remark will apply to rubeolous erythema of the abdomen and other parts of the body. The herpetic and squamous varieties present an ashy hue on the central parts, with a circle of darker aspect surrounding. It varies also according to the nature of the primary affection, being, as a general rule, of a lighter shade in the eruptions supervening upon gonorrhœa, than in those which were preceded by chancre. In short, the feature of the external aspect of lues venerea possesses characters peculiarly its own, not correctly comparable with those of any other known object. Cazenave proposes to designate it simply the syphilitic tint. According to this author, its seat is in the colouring layer of the skin, the rete mucosum, and not in the capillary plexus. This seems to be demonstrable by the fact that it does not disappear under

momentary pressure of the finger, as does the blush of simple inflammation, and it becomes more deeply evident as the subacute symptoms subside into the chronic form. Its long persistence after the surface has healed is deemed to be further illustrative of the same fact.

The next general trait, equal perhaps in importance with the last named, is the circular shape—familiarly known as the corona veneris of early writers—which syphilitic eruptions have a tendency to assume. Pustular, tubercular, and papular eruptions, when solitary, are of course of a rounded form always; but, becoming confluent, the grouping in the simple varieties is irregular, whereas, in those of specific nature, it is almost invariably and everywhere defined and circular. In the single instance of the large papule, however, this arrangement is sometimes not observed. In the confluent tubercular form constituting the winding patches of serpigo, the circularity which the component blotches possessed when isolated, is always discernible when coalescent. The vesicular and squamous groups are commonly so arranged also, as well as those of the exanthematous type.

Besides these distinguishing characters, there exist, moreover, some trifling differences of another kind. In squamous eruptions, the scales are thought to be thinner and drier in the specific than in the simple forms of these varieties; and there is, in addition, this remarkable feature, namely, when a portion of the scale becomes detached, which generally happens first at its outer margin, this loose portion presents a fringed appearance of silvery whiteness, which is not observed in those affections which are non-specific in their nature. In the crustaceous varieties, on the contrary, the crusts are thicker in the syphilitic eruption, of coarser texture, of

a greener cast, more firmly adherent, and there is a greater tendency to destruction of cutaneous tissue; hence the peculiar character of the cicatrices which they leave behind. The ulcerations also assume a more rounded or oval form, the cicatrices have a sensible depression, being at first of a bronzed aspect, changing gradually into an ashy grey tint, and ultimately to a silvery whiteness, being traversed by lines of a still brighter hue, and bordered by a wavy margin of brown skin. (Cazenave.)

It remains to be noticed that syphilitic eruptions are essentially of chronic character, their progress through the different stages being slow, suppurative action tardy, cicatrization delayed, and they are for the most part unattended with irritation, heat, or other local excitement. (Cazenave.)

It is highly probable that the blood of persons labouring under constitutional syphilis is very different in its properties from that of the normal state. This may be inferred from the character of the eruptive diseases met with, and especially the secretions from ulcerated surfaces. The mucous products and the cutaneous transpiration are altered in their sensible properties; the excretions from the bowels are often deficient in bile, and the urine is sometimes albuminous. The mucus of the mouth is clammy or glutinous, the perspiration is probably unusually loaded with albuminous and saline matter, which concretes on the surface, and falls off in furfuraceous scales, even in parts where no eruptions exist. The odour exhaled from both is offensive to one not similarly affected; this is not the acid odour perceived in persons labouring under febrile affections, but a sickly

smell not unlike that emitted from newly-turned earth, or that noticed in damp, underground vaults.

From my own repeated experiments, I know that the blood in this class of diseases is remarkably altered in its constituent proportions, as well as in its sensible properties; but not being an expert analytical chemist, I do not insist upon the correctness of the results at which I have arrived. Hereafter, it is probable, I may be able to procure the assistance of one better qualified for the task, whose results, should an opportunity occur, I shall be glad to make known. I may here mention, however, those peculiarities which I have hitherto found to be tolerably constant in all the specimens examined. The fluid experimented upon was always allowed to flow into a glass tube, entirely devoid of colour, the weight of which was accurately ascertained.

The *colour* was strikingly peculiar in each specimen. It was quite devoid of the purple hue which characterizes fresh venous blood drawn from a person free from specific taint. It is difficult to convey a correct idea of the precise tint alluded to. Venous blood, when fresh drawn from a person unaffected with specific disease, and before separation has fairly commenced, has a rich claret colour; but in addition to this, the whole mass has an appearance of being surrounded by a purple vapour, having a slight haziness. The blood of lues venerea has not this latter appearance, the colour being deeper, and of a dull and more decidedly dark-red tint.

The *proportions* of the clot and serum vary, but are not much different from those observed to obtain in other blood. The average quantities were,—serum 543, clot 457, in 1000 grains.

The *clot*, or red constituent, separated into two

distinct portions, divided from each other by a line of demarcation. The upper portion was moderately firmly contracted, deeply cupped on the surface, covered with a coat of light-yellow, semi-transparent fibrin, which was surrounded by a fringed border. The lower portion was perfectly fluid, and appeared gritty, or disintegrated. The proportions of these two parts relatively to each other appeared to be about one of the fluid portion to sixteen or twenty of the coagulum. The colour of the clot was darker than that of the uncoagulated part; that of the fluid sediment being of a bright red. The latter was evidently very heavy.

The *fibrin* obtained by washing, when perfectly dry, was in the proportion of 6·68 per 1000 of the clot, including the red sediment; in proportion to the whole mass of blood, 3·04 per 1000 grains.

The *serum* was thick, like mucilage, semi-opaque, of a greenish-buff colour, and had a specific density of 1031. On evaporation at a low temperature, a solid residuum was left, amounting to the enormous quantity of 623 parts in 1000. This, after incineration, left 25 per 1000 grains of ashes. Portions of blood incinerated altogether left from 29 to 31 grains of ashes per 1000. All the specimens here alluded to were taken from cases of confirmed lues.

On instituting a comparison between the qualities of syphilitic blood as above described, and the external appearance of the morbid phenomena under which the patients, from whom the specimens were taken, laboured at the time, one cannot help being struck with the resemblance which they bear to each other in several respects of essential importance. In the first place, the colour of the eruption and that of the blood were so

remarkably alike, that in order to obtain a correct idea of this external characteristic trait, it would appear enough to examine carefully the mass of blood through the walls of a glass tube. It can scarcely be doubted that the red tint of venereal blotches is due to localization of material derived from the red particles of the blood; hence it is not unreasonable to consider the appearance of the one as a true manifestation of this feature in the other.

The colour and density of the serum may be supposed also to exert an important agency in determining the peculiar tint of the skin observed in cases of confirmed lues. It is well known that the cutaneous capillaries circulate only the serum of the blood, holding in solution the saline and albuminous principles, but not the hæmatine. The prevailing colour of the skin must therefore, to a certain degree, be dependent upon the state of the serum in this respect. This supposition, moreover, is in accordance with what obtains in other diseases attended with striking cutaneous phenomena. In jaundice, for instance, Simon found the serum of a red colour, but having, when a small stratum was viewed, a bright amber tint. A similar condition was met with by Orfila, by Collard de Montigny, and by Clarion.

The great amount of albuminous material which the serum contained, leads to the inference that a very defective state of the power of fibrinization existed: the full amount of fibrin procured from each specimen is no proof to the contrary, but only shows that the function of assimilation was also defective, and hence the tendency to emaciation and loss of tone of the solid tissues generally observed in constitutional syphilis. Moreover, the blanched and semi-transparent aspect of the fibrinous

crust surmounting the clot, indicated that this constituent was not in a healthy condition, probably not in a state fit for the proper nutrition of the tissues.

The abundance of ashes was sufficient to prove also that a large amount of the saline ingredients was not appropriated in the ordinary way. This may suggest a cause for the tendency to loss of vitality and consequent separation of portions of bone commonly observed in adults labouring under old venereal affections, and to the determination of a rachitic condition of the osseous system in children.

The peculiar aspect of the surface of a venereal ulcer has been several times mentioned. Its most striking feature is its ashy colour, having a tint of yellow, or greenish yellowness, differing widely from the cream colour of a healthy simple sore. The seat of this coloration is a coating of secreted matter, a kind of pyogenic membrane, covering the surface of the ulcer. It is of considerable thickness, highly plastic, and adheres with considerable tenacity to the part upon which it rests. These qualities in the specific ulcer bear a very striking analogy to the serum of the blood of one specifically tainted, in colour, plasticity, and density.

CHAPTER V.

TREATMENT.

THE modes of treatment which have been at different times employed and recommended for the removal of syphilitic affections form a subject of no small extent and importance, upon which the attention of medical men has been engaged for ages past; and although the results obtained by a multitude of observers of great learning and experience have been recorded, the question as to an uniform practice still remains far from being settled. To examine, even in the most cursory manner, the relative merits of the many contributions to this branch of therapeutics, would be impracticable: I shall therefore confine my observations, after a few preliminary remarks, to such methods as have proved most beneficial in my own practice.

There is perhaps no other disease in which so great a number and variety of remedies has been tried as in that of syphilis. The materia medica has been ransacked from beginning to end, and every medicine offering the least probability of success has been brought under trial. From an early period, mercury attracted favourable notice; but on account of its alleged injurious effects on the system in some instances, attributable most likely, when such was actually found to be the case, to its injudicious employment or improper application, other agents have been sought and tested with persevering assiduity

and with variable results. Articles of indigenous production were much more extensively employed formerly than they are at present; but notwithstanding the reputation which some of these enjoyed for a period, and the extraordinary cures which it is stated, by men of credible authority, resulted from their employment, they have been almost entirely abandoned in later times.

The *arctium lappa* (burdock) was in considerable repute as an anti-venereal remedy during the sixteenth century, and has since, until very recently, been in use amongst a certain class of practitioners. It is mentioned by Riverius, that Henry the Third, King of France, was troubled with a venereal affection which could not be cured by his ordinary medical advisers. Having been informed that one Pena, a physician then practising at Paris, had effected many cures of this disease by means of a peculiar medicine with which he had become acquainted from a Turk, the monarch had him sent for, and was cured by him. The medicine in question was a decoction of the root of the great burdock, with the addition of a little senna, in wine and water. The medicine was used in this form fifteen or twenty days, the patient being kept in a profuse perspiration a great part of the time, which action appears to have been materially assisted by the constant use of "decoction of China, or Sarsa-Perilla" instead of other liquids as an ordinary beverage. The diet also was suitably regulated. After the expiration of the period named, the decoction of burdock alone, without senna, was continued daily for five or six weeks longer, at the end of which period all the symptoms had entirely disappeared.

Sarsaparilla, introduced into Europe from the West Indies about the year 1560, was looked upon as a medicine of great efficacy in lues venerea; but it soon fell into

disuse, and was almost abandoned until noticed again by Dr. Wm. Hunter and Sir Wm. Fordyce, about the middle of the eighteenth century; "not, however (as Dr. A. T. Thomson remarks), as a remedy fitted to cure syphilis, but of much efficacy in rendering a mercurial course more certain, and after the use of mercury.[1] Experience, however, has not verified the encomiums bestowed upon it; and the extensive observations of Mr. Pearson[2] have fixed the degree of benefit which is to be expected from this root in syphilitic complaints."[3] Mr. Pearson appears to have used it with success in some of the sequelæ of the disease which he regarded as no longer of syphilitic nature, such as nocturnal pains in the limbs, painful enlargement of the knee and elbow joints, membranous nodes, and cutaneous ulcerations. There is no doubt however that these symptoms are truly syphilitic, and if sarsaparilla really be efficacious in the removal of such ailments, it is undoubtedly a valuable remedy.

In my own practice, however, sarsaparilla, when used alone, has invariably failed to produce any beneficial effect whatever beyond what may result from the use of so much water, with a carefully regulated diet and abstinence from fermented liquors. For the sake of economy, patients sometimes purchase the root and prepare the decoction of it themselves. I have known it used in this way in enormous doses, augmented to several pints daily, for the space of three months uninterruptedly, and without the slightest result of a curative kind. It is highly probable that the preparation employed by Mr. Pearson and others was that in present use as the compound

[1] *Medical Observations and Inquiries*, vol. i. p. 149.

[2] Pearson *On Remedies for Lues Venerea*, p. 24.

[3] *London Dispensatory*, p. 595.

decoction, containing materials which are really efficacious in themselves,—sassafras, guaiacum, and mezereon.

Sassafras, although not possessing anti-venereal virtues in the degree which practitioners formerly believed, is nevertheless acknowledged to be efficacious in certain forms of chronic rheumatism, gout, and cutaneous affections, and is therefore very properly introduced into the preparation above named. *Mezereon* is a remedy of less doubtful efficacy. It acts as a stimulating diaphoretic, and has been long used in chronic rheumatism, scrofula, lepra, and other eruptive diseases. As an anti-venereal, also, it has had a reputation, which it appears in some measure to have deserved, from an early date. Dr. Donald Munro is said to have been the first in this country to test its efficacy in syphilitic affections, for which he used extensively the celebrated Lisbon diet-drink, of which it forms an important ingredient. It was afterwards employed by Dr. Russell, physician to St. Thomas's Hospital, who found it effectual in removing venereal nodes. He made use of the decoction of the root. It was found necessary, however, in some instances, to combine with it the oxymuriate of mercury. Dr. Cullen informs us that Dr. Home has not only found the decoction of mezereon to cure the scirrhous tumours remaining after lues venerea and after the use of mercury, but that it has healed them when proceeding from other causes. (Thomson.)

Soon after the outbreak of the venereal epidemic during the latter part of the fifteenth and beginning of the sixteenth century, the large class of vegetable remedies then in use was in great measure laid aside in favour of *Guaiacum*, which was thought to possess anti-venereal properties in an eminent degree. This article, which also forms a principal ingredient in the compound decoc-

tion of sarsaparilla, was introduced into Europe from the West Indies by the Spaniards in 1508. It had been made known to the discoverers of America by the natives, who had long been in the habit of using it in various forms of cutaneous disease. Its fame was soon spread abroad in the Old World, and its use became general for a period. After a length of time, however, it was discovered that its virtues had been overrated. The cases of syphilis treated by it exclusively, although modified in some of their features, were succeeded by characteristic symptoms over which its further administration exerted no control. De Hery, after having giving it a fair trial, came to the conclusion, that although serviceable in some degree as a sudorific, it was altogether useless as a curative remedy. When used alone, even to the fullest extent, the cases were still followed by swellings on the skin, nodes on the bones, and deep-seated pains, symptoms which had beforetime been attributed to the effects of mercury. In the subjugation of these, mercury was always found to be necessary, and was the only remedy indeed by which they could be successfully combated. He considered guaiacum, however, as a useful medicine for preparing the system for a mercurial course, especially —on account of its action on the skin—in cases where inunction was intended to be used.

Solanum dulc-amara is one of the indigenous productions which has fallen into unmerited neglect. Ray informs us that the inhabitants of Westphalia make use of a decoction of it in scorbutic affections; and Boerhaave says it is far superior to china-root and sarsaparilla for correcting a disordered habit of body. Hallenberg recommended it as a useful remedy in sciatica, rheumatism, scorbutic affections, jaundice, and lues venerea. It is certainly a powerful diuretic, and appears to have

specific properties against some cutaneous affections. I have known it succeed completely in curing one case of syphilitic lepra of a most intractable description, in the person of a medical man. The complaint remained several years after the original affection had disappeared, the secondary symptoms having run through their varying stages, assuming different forms of skin affection, until the leprous eruption remained, and continued to exist for upwards of two years, resisting every ordinary mode of treatment, not excepting repeatedly the use of mercury.

The resinous juice of the *Pinus Sylvestris* was formerly employed in gonorrhœa, as well as in other morbid states of the mucous surfaces. Its action is similar to the other exotic balsams, of which that of the copaiva-tree is now preferred in most instances. The latter undoubtedly exerts a powerful influence over gonorrhœal affections, and when given in full doses, so as to produce nausea and vomiting, will often succeed in arresting the discharge and of curing the disease, when it is in a mild form, in the course of a few days, or even in a few hours, without the aid of any local remedy. In some constitutions, especially those endowed with an irritable skin, it is liable, even when continued but a few days, to produce a roseolous eruption which is sometimes very troublesome.

The *Rumex Aquaticus*, the hydrolapathum of some authors, was formerly esteemed an efficacious remedy in lues venerea. I have tried it extensively, and from the success obtained in a few instances, was led to believe it to be possessed of all the virtues ascribed to it by its advocates, a result which I stated in a previous publication. I have since continued to test its virtues in many forms of the same complaint, in some of which it failed

to produce any beneficial effect at all, in others its use was followed by the most favourable results. In Case XXIII. it was given in the fullest doses and for a sufficiently long time, but had no more effect than if water alone had been given. The only cases which it benefited were rupia syphilitica and perforating ulcer after syphilis, in which forms it acted like a charm. One gentleman who had a number of perforating ulcers on the legs was cured by it in a few days, the disease having existed many months, and resisted a great number of remedies. The result was so gratifying to the patient, that he returned with a proposition to purchase a knowledge of the remedy, in order that he might communicate it for the good of others similarly affected. I think it serviceable, however, in those cases only where the habit of body has become decidedly cachectic, and especially when combined with oxymuriate of mercury, although in the case alluded to the oxymuriate was not used.

A number of other vegetable productions are named by authors as having had a beneficial influence in venereal complaints, such as the prunus padus, lobelia syphilitica, used by the Canadians, liquid amber styraciflua, daphne laureola, delphinium staphisagria, euphorbia tithymaloides, ulmus, tobacco, &c., but of these I have had no experience.

Nitric Acid, on the representation of Dr. Scott, who published his *Observations* at Bombay in 1796, excited considerable attention for a period as a remedy for syphilis. "But after the most ample trials (says Dr. A. T. Thomson) by almost every practitioner of any eminence in this country, its anti-syphilitic powers have not been found by any means to answer the accounts of those transmitted from India. The subsequent publi-

cations of Dr. Scott, however, have shown that he did not employ nitric acid alone, but a mixture of three parts of muriatic acid and two of the nitric. It checks for a time the progress of the disease, but does not permanently remove the symptoms; and as Mr. Pearson justly observes, 'it would by no means be warrantable to substitute the nitrous (or nitric) acid in the place of mercury, for the cure of venereal complaints.'[1] It is, however, of much benefit, in many cases, during a mercurial course, and previous to its commencement, when the constitution is impaired, and inadequate to support the effects of mercury."[2] My own experience of this remedy had before led me to discredit its efficacy in syphilis, and I have not now the slightest reliance upon nitric acid, or its compound, as an anti-venereal medicine, except as a local remedy in the form of gargle, to moderate the effects of ptyalism.

These and a number of other remedies which it is needless to specify, have seemed to act beneficially in some cases, and perhaps hold out as reasonable a promise of success as do some other plans more recently promulgated: as for instance, the liberal and exclusive employment of water, internally and externally; and the multitude of secret nostrums everywhere to be met with. The rigid system of hygiene, with the opportunity of breathing a pure atmosphere, cleanliness, and the operation of certain moral influences, constitute the essential part of the hydropathic treatment, and every rational practitioner knows how much the success of his remedies depends upon these agencies. It is broadly asserted that all diseases, whether organic or functional, specific or

[1] Pearson *On Remedies for Lues Venerea*, p. 188.
[2] *London Dispensatory*, p. 685.

simple, may be subdued in this way. To what extent these vaunted achievements have been realized, in organic or specific diseases—the only abnormal conditions really and at all times requiring the use of active specific remedies—we have daily opportunities of witnessing, under various aspects. Of the value of the hydropathic system of treatment, as an auxiliary, I am fully sensible: it constitutes, and ever has done, an inseparable part of therapeutic science. The passive, or "expectant," theory is no fanciful agent, for it is daily brought to bear in certain disordered conditions by every educated practitioner. It implies a reliance upon the "vis medicatrix naturæ" of Hippocrates, of Galen, and of Celsus; the "medicine expectante" of modern French writers. By the Allopathist this principle is employed in such cases wherein inaction is really indicated: in imaginary diseases, namely, and some others arising purely from faulty or erroneous habit. The cure of syphilis was recently attempted on this plan by Mr. Rose, a practitioner of intelligence and integrity, and many believe that his efforts were successful. It is very doubtful, however, if the cases he has recorded were in reality cured. The same method has since been adopted, and the primary symptoms, in many cases so treated, were as completely cured, to all appearance, as his. But was the disease really eradicated? The cases already recorded are, in my opinion, a sufficient answer

Mr. Rose, I believe, was the first of modern authors to establish the fact that the primary lesion of syphilis will disappear without the employment of specific remedies.[1] Other practitioners have proved the validity of

[1] Observations on the Treatment of Syphilis, *Medico-Chir. Trans.*, vol. viii. p. 349. 1817.

this statement, and I also can vouch for its accuracy. But does it follow that because the primary lesion is healed, the poison is therefore exterminated? This would be to suppose that syphilis is nothing more than a local injury. It is well known however that the venereal poison may be introduced into the system from one having the disease in primary form, without producing in the recipient any primary manifestion at all. Mr. Lawrence has recorded the histories of two such cases, neither of which was preceded by any primary lesion.[1] In the case already alluded to at page 244, the man had no primary symptoms, nor any affection at all in the usual way. The venereal nature of the ulcer on his lip was disbelieved by his ordinary medical attendant; and although the contrary was asserted by another practitioner of eminence, the treatment which the latter recommended was not adopted, and after a long time the ulcer healed by simple means. It has been satisfactorily shown, I trust, that this sore was really venereal, and that the specific taint was not removed when the ulcer disappeared. The patient was at that time unmarried, and remained so for a length of time afterwards; and although apparently in health on the occasion of his marriage, the seeds of disease were nevertheless conveyed to his wife, and were the cause of fœtal destruction in five instances, as well as of other suffering of great severity. In Case XXIX., the primary affection—if primary it really was—presented itself in so mild a form as almost to escape notice, and disappeared without treatment; yet were the consequences of the most lamentable description: the early death of four children from inherited disease, fœtal fatality in seven instances, malignant disease ter-

[1] *Med. Gaz.*, Feb. 1839.

minating fatally in the wife, and other mischief still existing.

Mr. Rose and Mr. Hunter entertained opposite opinions respecting the treatment of venereal affections; yet is it possible they may have been led to their respective conclusions by the same kind of oversight. "Hunter (says Dr. Colles) had probably not an opportunity, from his numerous engagements, of tracing the secondary phenomena for a sufficient length of time to enable him to determine the true nature of the lasting effects of syphilis."[1] Mr. Rose, I suspect, laboured under a like disadvantage. His experience was limited to the soldiery of his regiment, a class of individuals of all others the least suitably adapted for the purpose of affording the necessary results for the doctrine which he sought to establish. Soldiers possess all the requisites that can possibly contribute to the preservation of health or the removal of disease. In physical aptitude they are the select portion of our population; they are in the prime of life, free from care and anxiety; they are, as a general rule, obliged to be temperate in their habits, and have the best regulated system of hygiene; their daily exercises and general discipline, their early hours and strict attention to cleanliness, and the well-ventilated apartments which they occupy, are precisely the conditions which a physician would recommend as the means best calculated for the preservation of both physical and mental integrity. If there be an individual whose system is better adapted than another for resisting the encroachments of disease, or for its easy rejection when once implanted, it is that of the soldier of the British army. It is not stated in Mr. Rose's paper how long he had the subjects under surveillance after the alleged cures without

[1] Colles, p. 3.

specific remedy were effected. It is highly probable, however, that they were lost to his observation within a short time, certainly within a very few years; and especially after their dismissal from the service he would probably have no opportunity of knowing their condition subsequently. It is not seldom that we meet with the retired soldier freed from the wholesome strictness of army discipline, afflicted with old syphilitic affections, miserably emaciated and broken, sinking into the grave long before the completion of the natural term of man's life. It is often said that these men have had their constitutions shaken by hard service. My opinion is very different on this subject. I believe there is scarcely an artisan or an agricultural labourer who, including his domestic privations and anxieties, does not endure hardships amounting to many fold those of the soldier, in the same space of time. Even during an active campaign, which seldom lasts long, the exertion required does not often amount to more than what is calculated to have a salutary tendency.

With reference to the cases which may be considered to have been treated on Mr. Rose's plan, Case I. is an analogous example. The man had primary chancre, which soon disappeared without the aid of mercury. He appeared well on the occasion of his marriage six months afterwards, but conveyed the disease to his wife, and she to her child; and he himself had secondary disease twelve months later, that is, about seventeen months from the time that the cure was deemed complete.

Case II. is somewhat similar. The man was speedily cured of a primary sore six months before marriage, no specific treatment having been practised. He was quite free from all outward appearance of disease at this time; yet he communicated the taint to his wife, under which

she suffered most severely more than six years, and lost, in consequence thereof, three of her offspring.

In Case III. the husband's complaint was gonorrhœa, so considered. He got well without specific treatment. The taint, however, remained, and was conveyed to his wife about six weeks after delivery; from her it passed to the child she suckled, who died in consequence; and all her subsequent offspring, amounting to ten, died also from the same cause, unrenewed. At length she died of malignant disease of the uterus, evidently a result of the same infliction. It is a matter of deep regret that I had not an opportunity of submitting this amiable and respectable poor woman to a more active course of treatment when she first made application, as it is highly probable, that had such procedure been then practised, her sufferings at least would have been greatly mitigated, and, very probably, her life prolonged. No case can better illustrate than this does the mischievous consequences of that inert and very blameable mode of practice which obtains with some classes of practitioners.

In Case IV. both husband and wife suffered from primary syphilis, which was mildly treated in each case. After the disappearance of the primary affection, an attack of secondary disease came on, for which a course of simple treatment was pursued several months; and although they were wishful to discontinue it some time before it was laid aside, they both felt that the complaint was not cured. During eight years following she had eight pregnancies, of which two were abortions; the remaining six were born alive at the full time, and died as recorded, in infancy, of venereal disease. After each of her deliveries a train of symptoms, unequivocally syphilitic in character, came on in herself; and at all times, in the absence of external

evidence of the complaint, she was never free from an abnormal discharge, which bore convincing tokens of its specific nature. Such was her condition when I first saw her, after her seventh pregnancy ; and it was stated that the symptoms had exhibited themselves in similar form since their first invasion. As already recorded, a course of treatment was recommended which, from the patient's negligence, was not continued. When seven months advanced in her eighth pregnancy, she was subjected to the operation of protoiodide of mercury, which was continued during a space of more than three months. The infant died, but the efforts had not been unsuccessful, as she was the ninth time delivered of a healthy female child in July, 1848, who was living at the age of two years and-a-half, having entirely escaped the evils under which her predecessors had died.

Cases VI. and VII. are of a similar description. In the first, the mother had a primary affection, of which she was considered cured after a long treatment, which was non-mercurial. The taint was inflicted upon her offspring, and attended in herself with loss of power of the right arm. In the second, the man had primary disease before marriage, which, after the use of simple remedies, was reported cured ; but at a subsequent period it made its appearance in his wife and offspring, as well as in himself. The symptoms subsided in each under the active employment of mercurial remedies.

Case XIII. is also instructive on the same point. It is true the parties were not under my observation at the onset ; but they are people of intelligence, and their anxiety to be freed from their ailments led to the full disclosure of every circumstance which could contribute to a proper knowledge of their real condition. The

principal fact of importance relative to their previous treatment is this: they had not experienced, from the remedies before used, any evidence of the mercurial action, and their belief is, that this drug was not at any time made use of. The disease continued in active existence twelve or thirteen years, during which time the product of thirteen pregnancies perished in consequence; the woman's health having throughout been in a very infirm condition. The result of the treatment ultimately employed is sufficiently confirmatory both of the specific nature of the disease and the inadequacy of the remedies previously administered.

Cases XIV., XV., and XXI., are further illustrations. The first of these patients had primary symptoms, which it was said were cured in a month. If mercury were used in the treatment it was never made to produce the usual effects; and, indeed, if it had been so, the time was too short for its curative action, even although used actively. At the end of fifteen years from the above date the disease still existed, and proved fatal to the offspring produced at this distant period. The mother at the same time had constitutional syphilis, which was cured, after the failure of simple remedies, by means of mercurial treatment. The second of these had also primary disease, which disappeared under a plan of treatment confessedly anti-mercurial, which was continued nine months. The disease was actively prevalent at the end of eight years, and yielded finally to mercurial remedies. The third of this group was a case of secondary inoculation. The disease proved fatal to her three only children, and inflicted lasting injuries upon herself. She denied having experienced the effects of mercury at any time, and was finally cured by this remedy.

What can be more lamentable than the results which happened to the individuals mentioned in Case XXV., who, except for a short time during the acute stage in the first two patients, were under my immediate surveillance from first to last, a period of more than ten years. Repetition of the particulars is needless. The whole train of disasters which occurred were manifestly due to the inert plan of treatment employed in the first instance. This is acknowledged by the party who had charge of the cases in their earliest stages. Of the six individuals implicated, the two who perished evidently died from want of a suitable application of proper remedies; three of the rest were probably saved from a similar fate by the measures employed by myself; and one was by the same means freed from a disease which, although not materially detrimental to health, was still a great disfigurement, and, what was of more importance, was capable, as was already shown, of being conveyed to the offspring.

Case XXIX., which resulted in sycosis, was in the onset one of genuine chancre, as is sufficiently proved by the appearance of the cicatrix which remains indelible. The original complaint got well without the employment of any remedy. The reader has only to refer to the history for an account of its fatal effects upon a numerous offspring, and finally to the wife herself by the production of malignant disease. One of the children, as well as the man himself, were at length cured by mercurial remedies.

In Case XXXI. three individuals were implicated. The husband, who had been married (at the time of the report) about fifteen months, had experienced a primary syphilitic affection ten years before marriage,

which, he stated, disappeared under the employment of sarsaparilla. He felt certain that he never took mercury, or at least that the action of this drug was never produced in the usual way. At the same time he was fully convinced that he was never properly cured, and was also assured of this by his medical attendant, although he persisted in refusing to make further trial of the remedies proposed. When he first presented himself to my notice, eleven years after the primary accession, he had fissured psoriasis of the hands, of such severity as to render him almost incapable of transacting his professional duties (those of a lawyer); he stated also that he had experienced attacks of eruptions on the face and arms in the spring of each year since the first period mentioned: these had always disappeared under the employment, for six or eight weeks, of ioduretted sarsaparilla. He had been told, previous to his marriage, that although these cutaneous symptoms were undoubtedly the result of his former disorder, there was now no danger of communicating the disease to his wife. The result has been sufficiently disclosed. There could not possibly be a better marked instance of infantile syphilis than that which presented itself in his child. The only evidence of the taint in his wife was the uterine affection, the specific nature of which was convincingly characteristic. They were all subjected to a course of mercurial treatment, which was continued in the parents from February to July, with the most satisfactory results. In the mother and child the remedy was introduced endermically. The same procedure was prescribed for the husband, but as his habits materially interfered with the regular and effective use of inunction, recourse was had to its internal administration, and it was only when the constitutional effect of the remedy

became satisfactorily manifest, that the cutaneous disease began to subside. The cure was not, however, completed in him when the report was concluded. The wife and child appear perfectly well.

So much for the inert plan of treatment advocated by Mr. Rose, and the disciples of that school.

Of late years another powerful remedy, not known to the ancients as a distinct article, nor by the name which now distinguishes it, has been brought into use. I allude to *Iodine*, first procured in a separate form in 1812, by Courtois, a French manufacturing chemist, but afterwards made known as a therapeutic agent by Coindet the elder, of Geneva. It has since been extensively employed as a remedy for a multitude of diseases. It was first administered for the relief of scrofulous affections, its applicability in these diseases having probably been suggested by the knowledge, that burnt sponge, formerly used with advantage in the same class of ailments, was found to contain it, and was believed to owe its curative properties to the presence of this substance. It is therefore highly probable that iodine has been in use from a very early period in precisely the same diseases as those for which it is now esteemed as almost the only remedy of decided efficacy.[1] The therapeutic virtues of iodine and its preparations are now tolerably well understood, and it has for a length of time past been considered an efficient substitute for mercury, either alone, or in combination with this article, in venereal affections.

There is perhaps no other remedial agent, with the

[1] "De Spongiarum marinarum viribus et usu : vide Gal. lib. ii. ; et alibi sepius Diocles. lib. c. 138. Σπόγγος quoque Hipp. glandulæ faucium, quæ alias Tonsillæ Latinis, vocantur, l. 4. epid. iii., 14. 17." —Brunonis, *Lexicon Medicum*, p. 1076.

exception of mercury, which has been more extensively used during the last twenty or thirty years than this. At one time it was prescribed in a great proportion of all the cases met with, with the exception always of those of an acute febrile and inflammatory character. It was found to be decidedly efficacious in glandular enlargements, chronic tumours, and disorders occurring in those of a strumous or cachectic habit. It has been largely tried, with variable results, in venereal affections, both acute and secondary; and there is a class of practitioners who have been brought to consider it sufficient for these under most circumstances, and who, in fact, are in the habit of relying upon its curative efficacy to the exclusion of all other means, with the exception, perhaps, of sarsaparilla. The results obtained in my own practice have been less satisfactory, and especially so when administered in the small doses usually recommended,—from two to five grains of the iodide of potassium. When given in full doses, commencing for instance with ten grains, and gradually increasing the quantity to a scruple or half a drachm three or four times daily, so as to produce in a short space of time that peculiar condition denominated *iodism*, accompanied with certain discharges indicative of the required crisis, namely, a species of salivation, coryza, diuresis, diarrhœa, or profuse perspiration, its curative effects are, apparently, in some instances all that can be desired. But to this mode of administering it, although sometimes highly beneficial, there are some very serious objections, which are these: it is extremely liable to act in a very powerful and especial manner upon the eyes, producing at first turgescence of the capillaries; this rapidly increases to a state of most violent inflammation of the two outer tunics—the conjunctiva and

sclerotica. In several instances which have occurred to me of this kind, the inflammation was so intense as to threaten destruction of the organ, and requiring the employment of very energetic measures for its subjugation. Free depletion and vesication were generally necessary, and in some cases the use of mercury also. There was complete intolerance of light, which continued to prevail long after all inflammatory symptoms had subsided. In one instance where it was given in large doses after the complaint had been cured by means of mercury, with a view to free the system from the effects of this mineral, there was total blindness—complete amaurosis—of the right eye, which still persists, although no appearance of turgescence or inflammation had existed during the treatment.

It is not in all cases, however, that large doses produce this kind of action. In Case XXIII. it was administered in the highest doses which prudence would dictate, and for a sufficient length of time. The remedy was commenced on the 27th of January, in doses of ten grains thrice daily, and discontinued on the 17th of March, when the doses were half a drachm four times a day. During the last week of this term each dose was also combined with half a grain of pure iodine. In all, this patient used the remedy forty-nine days, during which period she swallowed eighty-four drachms of iodide of potassium, amounting to an average of somewhat more than five scruples per day. The result was, that she experienced very little inconvenience from it—none in the eyes, and but to a trifling degree in any other way: although iodism was produced several times, once in form of diarrhœa, once in form of catarrh, and she was occasionally a little nauseated. As a curative medicine

it was altogether inert, although stringent dietary regulations were enforced and adopted. This was the second trial made of the same remedy in this case.

Of the inadequacy of iodide of potassium, as well as of some others of the iodine compounds, to effect the eradication of the venereal poison I am fully convinced, both from my own actual experience and from its failure in the practice of others. For proof of this assertion I need only to refer to Cases XII., XVI., XVII., XXI., XXII., and XXIII., and others of the preceding series. Some of these patients were not under my own observation in the first instance; but I know that they were long under treatment by medical men who profess to cure the complaint without mercury, their principal remedy being iodide of potassium. The sequelæ are recorded.

Cases V. and XXIII. were subjects of trial by myself. They are not the only instances in which I have made the same kind of attempt, and failed; but they are the only examples which can be conveniently admitted here. The first was treated by this medicine in the acute stage: the primary symptoms soon disappeared, and the complaint seemed for some time after completely cured. Its history shows in what manner the relapses occurred, not only in the patient himself, but also in his wife and offspring after a comparatively short period; and again in a second wife and her offspring, necessitating a specific and active course of mercurial treatment after a duration of several years. Circumstances do not allow me to give all the particulars of this case. In the second case, named in the preceding paragraph, iodide of potassium was tried to the fullest extent, and failed. The first trial was with moderate doses combined first with lime-water, which I have often found a convenient vehiculum, and

then with sarsaparilla. The second trial was undoubtedly sufficiently active, as above stated, yet was no beneficial effect produced. The complaint was eventually cured by oxymuriate of mercury and repeated venesection in small quantities. It may appear somewhat singular that venesection should have been had recourse to in a patient already considerably reduced and emaciated. In truth, I removed a small portion of blood in the first instance for the sole purpose of analysis; the effect, however, was so immediately beneficial that the operation was done on subsequent occasions at the patient's urgent entreaty, so that I had an opportunity of witnessing the gradual change in the appearance and qualities of the fluid during restoration from a diseased to a healthy state. It may be remarked in passing, that depletion in small quantities appears, from repeated trials, to be a valuable auxiliary in some of these affections.

But although iodine, whether pure or in combination with potassium or with iron, be insufficient for the cure of primary, and for some forms of secondary disease, it has a different effect when associated with mercury. In form of protoiodide of mercury it is a favourite remedy with Cazenave, who seems to have been eminently successful in his treatment of these cases. It is necessary to give it, in gradually increased doses, sufficiently long to produce a mercurial crisis. My own trials of it in this form have been every way satisfactory. Case IV. is an instance where this result was obtained. On the testimony of the above-named author, the protoiodide is especially applicable in those forms of secondary disease accompanied with tumefaction of the skin and hypertrophy of the solid tissues; in tubercular enlargements and gummy ulcers, periostitis, &c. In the slighter and

more primitive forms he prefers the mercurial preparation of Hahnemann—the triple compound of nitrate of mercury and ammonia. In diseases of the bones he recommends the iodide of potassium; but his favourite preparation in these cases, and in all which have a tendency to cachexy, is the iodide of iron. If the patient be young, vigorous, and irritable, he employs, first of all, sudorifics, then the syrup of Larry, or Hahnemann's preparation, or the mild protoiodide of mercury: these will suffice in most cases. If the patient have the soft, lymphatic temperament, he prescribes strong sudorifics, and a combination of protoiodide of mercury and iodide of potassium with subcarbonate of ammonia. In cases where the constitutional power is much enfeebled, he prefers the iodide of iron. It is always necessary to prepare the system by means of sudorifics, baths, and a rigid diet; and attention to these matters is absolutely required throughout the treatment. In those of inflammatory habit, bleeding may be necessary; in irritable subjects opium, iron, quinine, and other tonic and soothing remedies, but only with a view to counteract any inconveniences which may arise during the administration of the curative agent.

Iodine and its preparations are valuable medicines in some other diseases; but I am not certain that I have yet witnessed an instance, whether given in full doses, so as to induce a marked crisis, or in smaller quantities long continued, wherein its curative effect was decidedly satisfactory in genuine lues venerea, except when combined with mercury. It is undoubtedly an important auxiliary when suitably administered, in many instances.

Among all the various changes which opinions have

undergone and experience elicited, *Mercury* has ever maintained its reputation as an anti-venereal medicine. Judiciously administered, carefully watched, and its different preparations suitably adapted to the severity and stage of the disease, and the peculiar habit or temperament of the patient, there is no remedy which can for a moment bear comparison with it in efficacy. But, used incautiously, and in cases where it is not indicated, it may be made to act injuriously on the system, just in the way that any other medicine, however innocent it may seem to be, may be made to operate. In how many instances has not so simple a medicine as magnesia, incautiously given, produced, by becoming amassed and consolidated in the intestines, the most disastrous consequences. In the hands of the reckless and unskilful, no remedy is harmless. Mercury has been said to produce those disordered conditions of the bones which naturally supervene, in most cases, upon venereal affections when badly treated. Similar morbid actions might have been attributed to the effects of guaiacum, for the same phenomena supervened where this remedy alone was employed. In Cases IV. and XXVIII. disease of the bones happened before mercury was administered in any shape. Disease of the osseous tissue is, in fact, a natural stage of syphilis, and is, I believe, more likely to happen in those cases where mercury is not used in the treatment, than where it has been given, even in unlimited doses. Doubtless, very serious results have happened from the indiscriminate use of this drug, especially when administered to such an extent as was deemed necessary by practitioners of the age which has just gone by: there is probably such a disease as eczema mercuriale; and *possibly* mercurial periostitis, with its consequences, has

been witnessed; but these do not necessarily, and should never, occur.

The writers of the seventeenth century had already arrived at the conclusion, that among the numerous remedies recommended for the cure of syphilis, none were deemed efficacious without the aid of mercury. In reference to these, I shall content myself with two or three short quotations. It was already said that Mercatus depended entirely upon this drug, which he deemed to be the only remedy that could be considered sufficient as a curative agent. Salmon also remarks:—"Many are the ways which authors have delivered in order to the cure of this disease; but we, who purpose only the benefit and health of the sick, shall show but two, excellent in the manner, facile in the operation, and certain to the purpose intended. The first way is without salivation; the other with it: the use of the latter of which we only intend when the powers and forces of the medicaments then made use of fall below the poison and malignity of the disease afflicting; which for the most part happens to such who live perpetual debauched lives, dissolute in their diet, frequently come into contact with unclean persons, and have had many attacks of gonorrhœa," &c.[1] For the accomplishment of the cure without salivation, he gives a number of prescriptions, variously compounded of guaiacum, antimony, sulphur, scammony, colocynth, buckthorn, jalap, and other ingredients, but being, in every instance, combined with mercurius dulcis (calomel), in doses which we are accustomed in the present day to regard as rather extraordinary.[2]

[1] *Synopsis Medicinæ*, Lond. 1679, p. 836.

[2] These are average examples:—℞ Confectio. Hamech., ʒss. ad ℥j.; syrupi rosar., ℥j.; mercurii dulcis, ℈j. ad ʒss.: mix for one dose. An-

Riverius has recorded several cases wherein his treatment consisted in the use of white precipitate. An example given was one in which two girls, one five years old, the other three, had both "many ulcers in their mouths and privities, with pustules and filthy scabs all their bodies over. A skilful chyrurgeon had given them a decoction of guaiacum for a moneth together, but in vain. I being sent for, cured the said girls within a space of fifteen days with white precipitate, giving each day to the elder six grains, to the younger four grains. . . . . But they persisted all the while in the use of their diet-drink of lignum guaiacum."[1] Another case is given of a mother and her infant, both in like manner diseased:—"A woman infected with syphilis brought forth a man-child with pustules and ulcers in divers parts of his body, who was cured with white precipitate, given in the quantity of two grains with sugar and milk, every day or every other day for a moneth together. He began to take it on the fifteenth day after he was born."[2]

But even mercury is insufficient for the cure of syphilis, unless administered in a particular manner. It has been stated by writers of eminence, advocates of the mercurial plan of treatment, that its mere introduction into the system, as evidenced by the usual salivary excitation, is enough for the purpose. If these practitioners have had opportunities of acquainting themselves with the subsequent histories of the patients so treated,

other:—℞ Ext. Rudii, ʒiss.; merc. dulcis, ℈j.; ol. juniperi gut, ii.: make into four pills for one dose. These doses were to be several times repeated, according to the effects produced.

[1] Riverius, *Histories of Rare Cures*. Englished by Nicholas Culpepper. Lond. 1672, p. 191. [2] Op. cit., p. 200.

they have probably arrived at a different conclusion. Under this kind of medication the primary or even the early secondary affection will disappear most satisfactorily in a short space of time, as happened in several cases recorded in Chapter II. preceding, in which free mercurial action was produced; but the disease in each instance remained years afterwards. The author last quoted mentions the case of a "M. Helot, a skilful chyrurgien of Paris," who, although he had undergone the active treatment by inunction, which was attended with an abundant salivation, had supervening symptoms in form of swellings of the neck, nocturnal pains, &c., and was ultimately cured by the use of Vigo's mercurial plasters used for a length of time.

The mere production of salivation, therefore, is no guarantee whatever that the curative effects of the remedy will follow. Some individuals have naturally an idiosyncrasic intolerance of mercury, even in the most moderate doses. In certain constitutions a single grain of calomel is enough to produce those effects upon the mouth denominated mercurialism; while in other instances the development of such action may require ten, fifty, a hundred grains, or much more, to bring about a like phenomenon. But under either circumstance, it would be unphysiological to suppose that every texture of the body can have been pervaded and renewed in so short a time, and especially if the introduction of the poison dates only a few weeks anterior to the commencement of the treatment, which, in the majority of instances, obtains. It is highly probable that within a week or ten days from the moment of inoculation, the syphilitic poison has reached, to greater or less extent, every organ and tissue of the body, with which it becomes incorpo-

rated by the process of assimilation. The artificial eduction of any violent action of an abnormal character, like that of salivation, disorders the processes of digestion and chylification, and diverts or arrests the assimilative function as a consequence: under such circumstances the remedy, very probably, is not disposed of by assimilation; hence the necessity of avoiding, if possible, its administration by the stomach. If mercury be really capable of originating those affections of the bones which have been ascribed to it, such disasters can only have occurred under the existence of a disordered balance of the nervous and circulatory forces previously existing, or to injudicious management of the remedy.

The modes by which the curative effects of mercury are to be obtained are two: either by means of small doses, so as to develop the required action slowly; or by affecting the system quickly and fully by means of large and often-repeated doses. In his choice of these two plans the practitioner should be guided by the urgency of the symptoms, and the constitution and habits of the patient. When the symptoms are mild and of long standing, the first of these is to be preferred, as in several examples already given; while in others, as Case V., a speedy effect is absolutely necessary to the preservation of the diseased organ from destruction. In some forms of disease also, occurring in children, as in sclerotitis, sloughing of the pudendum, and some others, a few active doses of the remedy will be required at the commencement; but these must be administered with extreme caution, either in aperient doses, or by one or two free applications upon the skin. After the desired effect shall have been obtained,—which must be looked for, not in the mouth as in adults, for ptyalism is a crisis

which must ever be avoided in infants, but in the effect produced upon the prevailing symptoms—the rest of the treatment should be practised in the mildest manner possible, and always through the endermic medium, if practicable. In constitutions of the sanguine or bilious temperament, possessing a tense and vigorous fibre, free from scrofulous taint, the treatment should, as a general rule, be comparatively active, and the remedies used should be the oxide or chloride; while in those of lax or irritable habit, greater caution is necessary, and the preparations, if intended for internal use, should be of a more tonic nature, as the oxymuriate and protoiodide, combined, as occasion may seem to indicate, with iron, Peruvian bark, compound decoction of sarsaparilla, &c.

With reference to the first of the plans above-mentioned: in order that mercury may produce its beneficial effects in the form of lues venerea most commonly met with, it is necessary that it be introduced slowly, continuously, during a sufficient length of time, and in doses suited to the constitutional tolerance and habits of the patient, so that each organ may appropriate the quantity requisite for the neutralization of the morbid principle combined with it. The real object is to change the nature of the blood and of the tissues, vitiated by a specific poison. This action has been called *alterative*, a term which some have objected against, as having, as they allege, no precise signification. It is idle to cavil upon points so trifling; and until a more suitable term shall have been suggested, there can be no harm in using one which expresses an object sufficiently understood by every one.

As already stated, it is not enough that salivation be

produced to procure the action of mercury as a remedial agent. If one grain be sufficient to affect the mouth, the dose must be diminished to a quarter, an eighth, a twentieth, or a fiftieth of a grain; the object being to procure that gradual change of the "humours" which in the end relieves the system of its burden, and enables it to resume its healthy action.

In all cases where it is determined to administer mercury in small quantities as a curative remedy in adult patients, it is always desirable to repeat the doses daily, until its action upon the system is manifested by incipient ptyalism. This should take place about the end of the second or third week. An interval of a few days may then be allowed to pass as a period of rest, during which time the bowels ought to be freely acted on by aperients, and the skin by warm baths and sudorifics, and then the remedy be recommenced and continued until a similar phenomenon is again brought about. In this manner the practice should be repeated during a period varying from two to eight months, after which space of time the ioduretted sarsaparilla may be given for one, two, or three months with advantage.

In certain cases of more urgent character threatening organic lesion, as in iritis, and also in acute arthritis or periostitis, as well as in caries of the cranial bones of ancient date, it is absolutely necessary that a speedy and decided action be procured in order to arrest the process of destruction. In such cases the remedy must be freely and repeatedly introduced, aided by certain auxiliaries to be mentioned presently, until a state of slight ptyalism shall have been brought about, when its further use is either to be discontinued for a time, or made use of in moderated doses. It must not be supposed, however,

that the treatment which has succeeded in arresting acute symptoms is sufficient for the complete eradication of the poison from the system. After the period of convalescence, the specific treatment should be renewed by means of small doses of a mild preparation, and continued for the space of several months, at repeated intervals as above mentioned. Other assistant means may also prove advantageous, such as some vegetable and metallic tonics, the use of mineral waters, change of air, and sea-bathing.

The preparations of mercury which have been used at different times as remedies are very numerous. I will briefly allude to a few of those only which are most commonly employed by practitioners of the present day. The preparation most frequently employed, and which is perhaps at the same time the mildest and most manageable, is the oxide. The pilula hydrargyri (blue pill), a formula received into every pharmacopœia, is in extensive use. For the purpose of procuring its specific action it is administered in doses of two to five grains twice, thrice, or four times daily; but as it is liable to act as an aperient, this effect is usually guarded against by combining with it a suitable quantity of opium, with a view to delay it within the alimentary tube so as to secure its absorption into the system. It is never given to infants in this form. A milder preparation of the same combination is the hydrargyrum cum cretâ, a form peculiarly suited for children, especially as an aperient, and also as a lenient alterative. It is used by some practitioners, exclusive of any other means, in cases of infantile syphilis; and although it may be sufficient for the cure of the complaint in this stage, it ought not to be trusted, inasmuch as it is capable of producing that

kind of action on the mouth which may terminate in destruction of tissue. Another form of the oxide exists in the unguentum hydrargyri, in combination with a quantity of oleaginous matter, and always used endermically. This, of all mercurial preparations, is probably the most efficient and most manageable form for producing the specific action of the drug upon the system, whether in the adult or the infant. It can be made to induce the required crisis as speedily and fully, or as tardily and gently as may be wished, and can be combined with many other both curative and modifying remedies to suit the nature and requirements of the case.

The next most useful preparation of mercury is the chloride or submuriate. It acts more powerfully and speedily upon the chylopoietic viscera than the oxide, and especially upon the liver. It is always administered by the stomach, except sometimes as a local application merely, without any intention as to its absorption, in cases of interstitial deposit occurring after some forms of ophthalmia, and occasionally as an application to the surfaces of superficial ulcerations surmounting hypertrophied structure. It is very useful as an aperient in large doses at the commencement of a mercurial course which is intended to be practised by inunction, or by the subsequent administration of the oxide. It may also be advantageously given in other diseases, as those of dropsical affections after scarlatina, combined with digitalis, jalap, scammony, and other articles; but in this place I wish only to speak of it as a remedy in lues venerea. It is used, in combination with lime-water, in the formation of the grey oxide, a preparation which, known as the *black wash*, is very serviceable as an auxiliary in the treatment of syphilitic sores. Calomel

should never be given to infants for the purpose of producing mercurialism, nor for the same purpose in adults, except in cases of acute organic inflammation, when a speedy action is absolutely necessary. It is very useful, however, for the purpose of inducing the slow action in doses of half, a quarter, an eighth, a twenty-fourth of a grain, or in still smaller quantities, combined with antimony and anodyne or tonic extracts. For such purposes, it should never be given to children; although as a purgative it may be made use of once or twice at the commencement of a course.

The oxymuriate or bichloride is a very valuable remedy, but is applicable in only a few cases, comparatively speaking. With the exception of inunction to a very limited extent, it is almost the only remedy—the protoiodide excepted—which can be beneficially employed in scrofulous subjects affected with lues venerea. It combines the properties of a mercurial alterative with those of a metallic tonic in an eminent degree, and is consequently well adapted to this class of cases. From the fact that it seldom produces salivation, even when long used, it is especially adapted for children of languid circulation, having a low status of the restorative function, in whom it is often productive of the most gratifying results. Van Swieten's solution, which contains half a grain to the ounce, is a convenient preparation; five to twenty drops of this are a convenient dose for a child, but it should always be given in a quantity of syrup or sugar and water. A very useful and convenient formula for the introduction of this preparation, is a twentieth or thirtieth of a grain in a tablespoonful of the juice, or a teacupful of the decoction of Taraxacum, taken three times a day, and continued for a long time. This combination is espe-

cially serviceable in cases of old eruptions. In combination with lime-water it is reduced to a state of peroxide, forming the *yellow wash*, familiar to practitioners as a useful local application to syphilitic sores. Alone in solution, or combined with sulphate of zinc and muriatic acid, conveniently diluted, it forms a very useful injection in cases of relaxation of the vagina, attended with prolapsus uteri.

Iodine combines with mercury in three proportions, the protoiodide, the deutoiodide, and the periodide. The last-named preparation I have but little knowledge of; the second I know from experience to be a corrosive and very active preparation, and ill-suited for medicinal purposes. The first-named is an efficacious remedy. It is especially serviceable in cases of lues venerea occurring in weakly and scrofulous subjects, and those in whom the healing power is defective. It is most conveniently administered in form of pill combined with a tonic extract, that of hops or the compound sarsaparilla extract, to the extent of one grain in three divided doses per day at the commencement, but it may be augmented to the extent of two or three grains per day. In order to obtain its curative effects, it is necessary to continue its use to the extent of a mercurial crisis, afterwards in smaller doses for a lengthened period as a lenient alterative. In Case IV. this remedy alone was made use of.

The mercurial action may be procured by means of peroxide (red precipitate), or by the ammonio-chloride (white precipitate), but of these I have only a limited experience as internal remedies. The red precipitate, finely levigated, is a valuable endermic medicine. I have used it as a constitutional remedy very frequently by way of inunction, and have found it to produce very

beneficial effects in cases of gonorrhœal rheumatism, especially when located in the joints. It is also efficacious, either in powder or ointment, as an outward application in indolent venereal sores. The tribasic compound of nitrate of ammonia and mercury (the mercury of Hahnemann), is said, on the authority of Soubeiran, to be a useful remedy, but I have had no opportunity of testing its virtues.

Arsenic has been extensively used in certain forms of obstinate skin disease, as degenerated psoriasis, lepra, &c., and it is certainly productive of beneficial results in some instances; but where the eruption arises from a syphilitic taint, although the symptoms may be modified by its use, it never effects a cure: the annoyances return in all their severity soon after the discontinuance of the remedy. The triple combination of iodine, mercury, and arsenic, the iodo-arseniuret of mercury of Soubeiran, appears however to possess properties which recommend it as an auxiliary which may be useful if continued sufficiently long. Mr. Donovan, of Dublin, has more recently made trial of it in form of solution, named by him arsenici et hydrargyri hydriodatis liquor, which has the advantage of being more convenient for administration and perhaps more active in its operation. It has undoubtedly the effect of mitigating the symptoms, even those of specific origin, but relapses take place after its discontinuance. This is perhaps owing to its too early withdrawal. I can imagine that a different result would probably be obtained if, during its administration by the stomach, mercurial inunction were practised on the abdomen; but with this assistance I have not tried it.

The simultaneous use of iodine and mercury, introduced by different channels, is a plan of exhibiting these

drugs highly deserving attention. In many cases of lues venerea, even those of an inveterate character, as impetigo, eczema, and the serpiginous tubercle, occurring as a relapse at a remote period, the symptoms will yield under their employment; and if the remedies be continued for a length of time after the cure seems to be complete, no further troubles will arise. The way to make use of them is to introduce the mercury endermically, and the iodine, in form of iodide of potassium, by the stomach. Supposing the case to be one of impetigo in a child three years old, the diluted mercurial ointment should be spread upon a piece of flannel, or felt, or piline, sufficiently large to cover the lower half of the abdomen, the sub-umbilical region, where it is to be constantly maintained by means of a broad bandage. An additional quantity of the ointment should be spread upon the same material once a day, and continued until the alterative action—not the mercurial crisis as commonly understood—is evident. At the same time half a grain or more of iodide of potassium dissolved in a dessert spoonful of compound decoction of sarsaparilla must be given three times a day, and continued for a length of time after all symptoms have disappeared. Even in cases where the disease has assumed the form of mesenteric hypertrophy with cachetic habit, I have seen this plan of treatment attended with complete success.

The action of mercury may be procured to a certain extent by means of fumigation. This mode of administration was much more in vogue formerly than it is in the present day, although, even now, it is far from being out of use. The preparation commonly employed is the bisulphuret, or red sulphuret of mercury, the cinnabar of commerce. It was principally used in the treatment

of venereal sore throat, for which purpose half a drachm was directed to be placed on a hot iron plate, and the fumes inhaled. It is also sometimes used in the same form to the whole surface of the skin, in cases of old and inveterate eruptions, but its curative efficacy is very doubtful, although as an auxiliary there can be no reasonable objection to its employment. Cinnabar, when used in this way, is said to undergo decomposition, the vapour consisting of sulphurous acid fumes, volatilised mercury, and probably a small quantity of undecomposed bisulphuret. Mr. Langston Parker, of Birmingham, has used it extensively in this way, and with considerable success. Dr. Christison states that, as an internal remedy, it is inert. This I have reason to disbelieve. If finely triturated with sugar-of-milk, it becomes an active remedy, and will, in this form, induce a mercurial crisis as speedily as any other preparation.

Sulphur has long been deemed, and not without reason, an efficacious remedy in some forms of skin disease. It undoubtedly possesses, besides its specific power in scabies, valuable properties in rectifying a faulty action of the cutaneous capillaries. As a curative agent, however, in syphilitic eruptions, it has no power whatever. Indeed, when given alone, even to the fullest extent in these cases, it generally fails to produce the slightest mitigation of the symptoms. But when conjoined with mercurial inunction, the effect is altogether different. I have seen cases of impetigo and serpiginous eruption, which had resisted both these remedies separately administered, completely subside under their conjoined action. One example of this kind was mentioned in Case XXIX. It has also proved in like manner beneficial, thus associated, in cases of chronic inflammatory hypertrophy and

induration of the uterus, both of specific and simple nature.

With reference to the relative value of the three modes of administering mercury previously noticed, it may be here mentioned, that its endermic introduction by means of inunction possesses many advantages over the others; and there is no curative effect which may not be as efficiently and as speedily procured by it in this way as by giving it internally, with the exception of its direct action on the chylopoietic organs, and its operation as an aperient. The advantages which the adoption of this method offers are these:—it does not interfere with the processes of digestion; its action upon the system can with greater confidence be reckoned upon, as it is not liable to be changed or decomposed, a contingency to which its administration by the stomach is always liable, especially in children, in whom the process of chymification is often attended with the generation of an abundance of free acid, by the agency of which, remedies of this class may be either decomposed and rendered inert, or they may be changed into more active compounds, capable of originating an action totally different from that which was intended, and perhaps detrimental to health. Again, its operation upon the constitution is more complete and satisfactory, while at the same time its action upon the mouth is, I am inclined to think, less inconvenient, and, even if severe ptyalism should be induced, this is seldom attended in the same degree with those disagreeable effects upon the gums and teeth which are liable to arise during the existence of ptyalism induced by the internal method. Even in children in whom it has been continued for a period of eight or ten weeks, and who have experienced during the time

the effects of salivation, no disagreeable consequences have ensued. I may here state that I never designedly cause it to be used to this extent in children; but it has accidentally happened, in several instances, on account of the carelessness of their mothers, who, finding that the little patients were better, have neglected to attend to the instructions given, and continued the application to the production of ptyalism; yet, even this has always resulted beneficially. It is proper, however, to be extremely cautious in this respect, and always to avoid a crisis of such kind in young children.

The treatment for children should be commenced with an aperient, provided the bowels are not already relaxed. A suitable medicine for this purpose is a powder composed of one or two grains of hydr. cum cretâ, two grains of rhubarb, and a few grains of magnesia or scammony, to be repeated daily to the third time. If the bowels were previously relaxed, the aperient may be dispensed with. Then, during the space of three or four days more, the ung. hydr. fort., diluted with an equal quantity of cerat. cetacei, should be applied to the abdomen upon a piece of thick flannel or felt, in the manner already stated. During another week, the ointment used should be twice diluted, and for the remainder of the treatment the dilution may be carried one or two degrees further. At the end of sixteen or twenty days, it should be discontinued for two or three days, and the aperient given once or oftener, according to circumstances. After this, the diluted remedy should be resumed and continued for a like period, being followed again by an interval of rest as previously, and again practised a third, or a fourth, or even oftener if needful, the quality of the application being regulated, as to

strength, as necessity may indicate. Conditions may arise requiring the use of other remedies, or the discontinuance of the alteratives — an interruption which ought, however, to be avoided, if possible. But should severe griping, diarrhœa, or restlessness come on, the ointment may be either discontinued for a few days, or be combined with a little camphor, extract of opium, morphine, extract of poppies, or aromatic confection. If the skin should be irritable, or become irritated by the remedy, the diluting material may partly consist of confection of almonds, with the addition of a few drops of hydrocyanic acid.

During the treatment of infantile syphilis, both the parents from whom the disease was derived ought at the same time to be subjected to a course of suitable remedies. This is best done by inunction. Two drachms of strong mercurial ointment should be rubbed upon the abdomen, groins, and inner aspect of the thighs, once daily, or every other day, until the effect is fairly perceptible in the usual way. The action should be slightly kept up for several months afterwards, with short intervals of rest, and an occasional aperient, or other corrective or tonic medicine, if necessary. Each inunction should be vigorously performed, and continued from twenty to forty minutes at a time, until the remedy is completely absorbed. A warm bath every third or fourth day will also be desirable. After the discontinuance of the alterative, the iodureted sarsaparilla may with advantage be made use of daily for a period of four, six, or eight weeks.

There are also certain hygienic precautions which it will be necessary to observe during the practising of these processes. The diet should be light and unstimulating. Du-

ring the first stages of the treatment, solids, with the exception of some farinaceous articles, such as bread, rice, &c., should be entirely abandoned; soups, milk, eggs (except when the oxymuriate is in use), farinaceous puddings, white fish, may be taken sparingly; but all articles possessing acid properties, or which are likely to create an acid state of the stomach, are to be avoided: so that pickles, fruits, whether ripe or preserved, and most of the saccharine substances, are inadmissible. Solid animal food may be again taken when the mercurial fever shall have subsided. The skin should be warmly clothed, and the most stringent precaution is necessary to guard against exposure to alternations of temperature. With regard to beverage, temperance, or rather abstinence, in the strictest sense, should be observed. The most suitable drinks are water, soda-water, barley-water, linseed infusion, whey, &c., and the more freely dilution with these materials is practised, the more will the process of treatment be aided.

The diet during a course of iodine also must be strictly regulated: but this will differ materially from that recommended during the use of mercury. The same attention to clothing, temperance, and bathing, will be required; the nature of the ingesta must, in some degree, be reversed. Instead of farinaceous articles, animal food may be made use of in moderation. But all articles which contain the starchy principle abundantly, such as potatoes, rice, sago, &c., must be strictly prohibited, as iodine enters readily into combination with these substances, converting them into insoluble matter. A little bread, and certain vegetables, such as carrots, cauliflower, and some of the leguminous varieties, which contain a comparatively small proportion of fecula, may be taken occasionally.

Cod-liver oil is a remedy of considerable efficacy in infantile syphilis. In cases of rickets and those of rachitic tendency, the circulatory forces being enfeebled, nutrition impaired, and the osseous development retarded, the use of cod-liver oil is often attended with the most signal benefit. It is also of use in certain cutaneous affections of long duration, especially those which were originally of pustular character, as ecthyma, and the pustulo-crustaceous impetigo: in eczema and rupia too, attended with general wasting, it may be employed with advantage. But these complaints, when of syphilitic origin, do not get entirely well under its use; they improve to a certain point, and the general health is also manifestly better; but the eruption remains obstinately stationary, and if the remedy be discontinued, the complaint is liable to relapse towards its former condition. At this stage of the treatment, that is to say, when the improvement has ceased to go on, if the further use of the oil be associated with mercurial inunction, the morbid phenomena will, as a general rule, begin immediately to decrease, and the result, in most instances, be satisfactory. It may be beneficially applied externally by means of prolonged friction upon the limbs, back, and abdomen, in cases where a speedy effect is necessary; and, as a considerable quantity may be made to enter the circulation by cutaneous absorption, this mode of introduction may be substituted for the ordinary method in cases where the stomach is delicate and tolerates its presence with difficulty. In cases where the cod oil does not readily digest, it may often be made to agree by the administration of pepsine, either combined with the oil, or given separately. In cases where the cod-liver oil fails to benefit, chalybeates will generally succeed.

Antimony and ipecacuanha are valuable auxiliaries to mercury in those constitutions, occasionally met with, which are peculiarly unimpressionable to the action of the mineral. They may be given in nauseating doses by the stomach during the operation of inunction, or they may be combined with the mercurial in form of pill where inunction is not used, or only sparingly practicable. In the latter case, I order an eighth of a grain of antimony, or a quarter of a grain of ipecacuanha, to be combined with the half, or one grain of calomel, or four grains of pil. hydr., and five grains of the compound extract of sarsaparilla, to be taken every four or six hours until the required action is set up, and afterwards the dose of each must be diminished, or given at longer intervals. Venesection and the warm bath are also serviceable with a view to the same end, under the existence of difficulties of this nature. The compound of which Plummer's pill is formed, given in form of powder, is also efficacious.

External applications are occasionally serviceable in limiting the extension of the sloughing process, and in diminishing the spreading tendency of some eruptive disorders, in allaying local irritation, correcting and stimulating unhealthy and defective action, and in disposing ulcerated surfaces to cicatrize. The remedies employed for these purposes are too well understood to require especial mention in this place. I may be excused, however, if I obtrude two or three formulæ which I have been accustomed to use in some of the more troublesome forms of these annoyances. The unguentum hydrargyri nitrico-oxydi compositum, containing a quantity of liquor plumbi, doubtless an unchemical compound, is nevertheless a very useful application

in chronic ophthalmia palpebrarum, and in indolent ulcers existing in any part of the body, especially when constitutional treatment is at the same time practised by means of the oxymuriate; cod-liver oil is serviceable as an application to impetigenous and eczematous eruptions; irritation and excoriation about the vulva is remarkably ameliorated by the mistura amygdallarum combined with hydrocyanic acid; the last-named article, as an addition to liquor plumbi, is equally efficacious in many of the same kinds of ailments; and the restoration of the hair in cases of alopecia is materially hastened by the daily infriction of a combination of the ointment above named—the ung. hyd. nit. oxyd. co.—with a small quantity of ol. caryophillorum. This preparation is also remarkably serviceable in removing scurf or dandrif from the scalp, from whatever cause it may have arisen.

There are many cases, moreover, of lues venerea, both in infant and adult life, which, either from peculiarity of temperament, extreme debility, or the existence of other diseases, do not always admit the employment of mercury in any shape, especially at the onset. Such cases should be first of all treated by means of fortifying remedies and restoratives—chalybeates, quinine, cod-liver oil, or other tonics, and a generous diet, with residence, for a length of time, under a changed atmosphere; the specific remedy being added at a suitable period.

Such is a general outline of the system of treatment which has been for some time in vogue in my own particular circle. I forbear to enter into a survey of the numerous plans which have of late years been promulgated by others, inasmuch as these may be readily found in the journals of the day, or in particular publications. The contributions are numerous, comprising as much

variety as can possibly be desired. To attempt an inquiry into the relative merits of the various conflicting opinions advanced by even a small proportion of them, is not my purpose, and moreover, would not only be tedious, but useless. It may be here stated, that I am not obstinately wedded to any particular mode of practice, but should be willing, on reasonable grounds, to substitute any method, whatever its origin, offering reasonable promise of superiority to that with which I am already familiar. Cases are met with in my own practice, and very likely others can make a similar confession, which offer insurmountable difficulties on every hand.

Much has been said and written during the last few years on the subject of Syphilization; a process by which it is asserted that not only may syphilis be eradicated, but that the system of one subjected to its influence may be rendered ever afterwards invulnerable to the syphilitic poison. The practice was introduced by Auzias-Turenne of Toulouse, who commenced his essays in 1844, in a series of experiments, with the view of testing the validity of Hunter's doctrine of the non-communicability of syphilis to the lower animals. After a number of failures, this pathologist succeeded in producing upon monkeys inoculated with the matter of primary chancres, disease bearing all the essential characteristics of acute syphilis. The matter of the sores thus produced, being implanted upon the horse and other animals, was followed by the development of ulcers precisely similar in every feature to those from which it had been taken in the monkey. That these sores were of primary syphilitic character was conclusively proved by other phenomena which arose

on the transplantation of the secretion of them, as they existed in the horse, the dog, and the cat, upon the human subject, in whom it produced genuine chancrous ulcers of primary character.

The first experiments in this last-named direction were practised by Dr. Weltz, of Würtzburg, who thus succeeded in producing upon his own person, on four separate occasions, an unmistakeable chancre.[1]

By repeatedly practising his operations upon the same animal, with matter taken from different sources, Turenne noticed that after a time each new sore became smaller and less severe, and at length no effect was produced, although the matter used in the later experiments was the product of ulcers equally virulent as those from which the first had been obtained. Impressed with the idea that this negative result indicated in the poisonous matter a self-destroying tendency by saturation, he instituted the same practice on the human subject, and thus succeeded in making the disease to disappear without other treatment. The results of a number of such experiments were laid before the French Academy of Medicine, in November, 1850.

Emulous of the success which was reported to have accrued from Turenne's method, Dr. Sperino of Turin, who, as physician to the Syphilicoma (the venereal hospital) of that city, possessed an ample field for testing the value of the practice, instituted a series of experiments of the same kind, which are said to have yielded satisfactory results. The practice was speedily adopted by Professor Danielson of Bergen, Carlssen of Stockholm, Gulligo of Florence, Dr. Gamberini of Bologna, and some others.

[1] *Brit. and For. Med. Chir. Rev.*, Ap., 1857, p. 411.

The preponderating accumulation of facts on this subject, however, has been furnished by Professor Böck of Christiania, who, possessing a wide scope for such investigation, has duly availed himself of his opportunities, having experimented in this way upon more than 1200 patients. His published results are deemed by him to be highly favourable to the practice; although, according to a critical analysis ably instituted by M. Follin, a very different interpretation is rendered.[1]

In this country, the practice, so far as I know, has not hitherto been tested.

The process consists in the repeated introduction, by means of inoculation, into the system of one affected with primary syphilis, of matter obtained from sores existing on another similarly affected, the operation being repeated every two or three days, or oftener. It is stated that the sores resulting from these renewed implantations, after a time become less and less in size and severity, until at length no effect whatever is produced by the process. When this negative point has been arrived at the inoculations are discontinued, the patient being considered to be completely syphilized and cured. No other treatment of a specific nature is made use of during the syphilizing process.

The average length of time required for the accomplishment of such a course, is from six to seven months; and the average number of wounds inflicted by the inoculations is somewhat more than 300.

It would be premature to attempt an estimate of the value of this mode of treatment at so early a period after its introduction; for, however complete in some cases the cure may seem to have been at the time, and even

[1] See *Archives Gén. de Méd.* Février, 1856.

up to the end of two or three years, a much longer period is required to determine whether the blood has been made quite free of the taint, and rendered incapable of receiving a new infection. It is not by any means a rare occurrence, to witness the manifestation of constitutional syphilis in the offspring of a parent, from whose system every outward sign of disease has been absent for several years previously, and the existence of which might not have been suspected, had it not been aroused and developed by transmission. If any taint remain in the parent, unmistakeable signs of it may with tolerable certainty be looked for in the offspring; and there is perhaps no other evidence by which we are able or entitled to pronounce positively that the cure is perfect, except the propagation of an untainted child. Notwithstanding the amount of success, therefore, which has encouraged its early advocates to recommend the practice for general adoption, it will require time to ascertain its real value as a curative agent.

But the results of syphilization are far from having been uniform or satisfactory. Even after the most persevering efforts, secondary accidents seem to have occurred—if not with equal frequency as after other plans of treatment, at least often enough to throw a doubt upon the sufficiency of the practice as a means of cure. This is shown by the reports of its most strenuous advocates—M. Sperino and M. Böck; and repeated failures have occurred both at Paris and elsewhere. In the series of operations practised upon a young gentleman—a M. Laval, student of medicine at the Lourcine—by M. Gosselin, the inoculations were continued until no further result was obtained by the process—to complete syphilization. For a length of time M. L.'s system

appeared to possess immunity, but he was afterwards successfully inoculated by M. Ricord.

"What do we witness," demands M. Follin, "as the results of this practice? Secondary symptoms which disappeared very slowly; forms of secondary disease very intractable in their nature; tertiary symptoms which did not disappear at all; a very protracted treatment, very painful, altogether disgusting; recurrence of symptoms which did not appear to be inferior in number to those which followed mercurial treatment."

En résumé, this author adds, "It is not at present proved that repeated inoculations to the point of immunity rendered the system less liable to secondary disease; and when the symptoms disappear under syphilization, no proof is given that the patient possesses immunity from the manifestation of lues venerea."[1]

In reference to modes of treatment, my own sentiments fully accord with the following wise observation of Dr. Graves:—"The rational practitioner is neither a mercurialist nor a non-mercurialist; he acts according to the state and peculiar exigencies of each case, and selects his plan of treatment according to the form, condition, and duration of the disease, as well as the constitution of the patient."

[1] Loc. cit., p. 200.

CHAPTER VI.

ON THE ALLEGED INJURIOUS EFFECTS OF MERCURY AS A THERAPEUTIC AGENT.

THE prevailing objections against the employment of mercury in the treatment of syphilitic affections have arisen on the Continent, probably among the disciples of Hahnemann, and the prejudice has extended to this country,—its total abandonment in this branch of practice being advocated by not a few. The reasons assigned for the rejection of so valuable a remedy—its insufficiency, namely, for the effectual cure of syphilis, and its tendency to induce other troubles—are, in my belief, ill founded. If injudiciously or incautiously administered,—if given, for instance, in cases where its use is not indicated, or in immoderate doses,—and especially if regardless of certain precautionary conditions necessary for securing its effectual operation, and for protecting the vital organs, during the process, against atmospheric and other vicissitudes; or in habits of body known to be intolerant of it, as the tuberculous, the scrofulous, or the cancerous diathesis; it may certainly be productive of evil. But the same may be said of any remedy whatever. Arsenic is known to be a valuable medicine; but, if used incautiously, it may not only be productive of ills of great gravity, but may produce death as certainly as when given with criminal intent. Strychnine is a curative agent of great efficacy; but it is also a deadly poison, and is little less dangerous in the hands of an incautious

practitioner than in those of the felonious homicide. As much may be said in reference to opium, iodine, aconite, belladonna, and many others of equal potency; and scarcely less of a number more, commonly deemed innocuous. No remedy is a safe one in the hands of the reckless or unwary. But how insignificant the amount of mischief inflicted by drugs, whether the result of malpractice or of premeditated wickedness, in comparison with that produced by overfeeding and the immoderate use of ardent spirits—and perhaps tobacco, with the certain entailment upon the offspring, of organic evil which is liable to become constitutional and persistent!

The terms in which mercury has been condemned by some authors are almost unqualified. Of these the following is an example:—"One dosing of mercury, to salivation, you may rest satisfied, is enough, and often more than enough, for a syphilitic patient; for I have little doubt it will last him for every day of his natural life." Such is the opinion of an author of enlarged experience, and a clinical teacher: he, in common with others, believing that the employment of mercury is not only powerless as a remedy in syphilis, but is capable of entailing troubles of a serious and lasting character.[1]

Not a few entertain opinions very similar to those contained in the preceding paragraph; and some, with M. Ricord, believe also that the destruction of an indurated chancre by local measures is alone sufficient for the eradication of the syphilitic poison (of that particular infection) from the constitution.

The new doctrine of syphilization has been introduced, in the writings of each of its advocates, by a preamble on the insufficiency and danger of mercury as a remedy

[1] See Lectures, by F. Skey, *Association Journal*, 1856, p. 211.

for syphilitic affections. Among this number, M. Sperino seems to be the most explicit in his remarks, and in his premature attempt at generalization has included forms of disease which are altogether exceptional, if not gratuitous. "Mercurial preparations," says this author, "of whatsoever kind,—protoiodide of mercury, the pills of Sedillot, the mercure gommeux of Plenck, or any other,—frequently cause intense stomatitis, gastro-enteritic inflammation of grave character, accompanied with obstinate diarrhœa. They render the patient eminently impressionable to atmospheric vicissitudes, and subject to inflammations more or less severe, and to rheumatic pains. The chemical action of mercury alters the crasis of the blood, diminishes its plasticity, engenders a disposition to scorbutus, and develops the lymphatic diathesis. Respecting the use of the oxymuriate, which is still a favourite remedy with many practitioners, I should say that they who regard it as hurtful are not deceived; for it sometimes promotes the development of tubercular phthisis, lesions of the brain, paralysis, dementia, and epilepsy."[1] M. Boeck, although less positive in his charges against mercury as an injurious agent, has also his objections; and, apparently as an incentive to the adoption of syphilization, asserts his belief that mercury has a tendency to bring about neuralgic and mental disorders, and thinks it capable of producing inconveniences even more serious than those caused by the disease for the relief of which it is administered."[2]

[1] SPERINO, *la Syphilisation étudiée comme méthode curative, et comme moyen prophylactique des maladies vénériennes*, traduit par Trézal, 1853.

[2] WILHELM BOECK, professeur à l'Université de Christiania, *Syphilisationen Studeret von Sygesengen*, 1854.

There is not a doubt in my mind that in these sweeping condemnations of a most valuable remedy, the writers have been influenced by prejudice, imbibed probably through a questionable knowledge as to its mode of administration, and the degree of effect necessary to be produced by it; or else through an enthusiastic preference in favour of the new practice which they advocate, but which, thus far, has certainly failed to furnish results so satisfactory as we were led to expect from it. These observers have manifestly mistaken the effects of mercury for those of syphilis. Neuralgic and rheumatic pains, for instance, of the severest character, are among the commonest accidents of secondary and tertiary syphilis; and exostosis, exfoliation of cartilage, arthritis, glandular disease, scorbutus, alopecia, obstinate cutaneous affections, and certain morbid conditions of the reproductive organs, leading to infertility or to the propagation of unhealthy offspring—all owing to a dyscrasic condition of the blood, due to the presence of the syphilitic poison, are curable by mercury, and, so far as I know at present, by no other remedy.

M. Follin says, and I think very justly: "that this act of accusation against mercury pleases, by its sombre colours, the vulgar—always greedy to swallow anything marvellous—we do not doubt; but that it is sufficient to satisfy the practical physician accustomed to the observation of facts on syphilitic diseases, we crave permission to doubt." This author adds, however: "Quoi qu'il en soit, et malgré nos réserves, il faut reconnaitre que nous ne possedons pas encore de donnés rigoureusement exactes sur la guerison de syphilis par le mercure; nos syphiliographes les plus autorisées restent à cet égard dans un vague qui doit encourager de nouvelles re-

cherches."[1] I am in hopes of being able to satisfy M. Follin's doubts on this subject.

Much as mercury has been decried of late years, however, its employment has still been preferred by the great majority of practitioners in syphilitic affections, both on the Continent and in this country. To say nothing of the older and more celebrated authorities—Cazenave, Biett, Cullerier, Cooper, Brodie, Lawrence, and many others, whose testimony ought to be sufficiently weighty; many other observers of more recent date have furnished facts in abundance tending to confirm the validity of this mode of practice.

M. Rodet has published several categories of facts, the result of six years' practice exercised over a wide field for observation, by which he is enabled to indicate with tolerable certainty the period during which it is necessary to continue the treatment in order to obtain a perfect cure. His experiments show that a course of treatment extending over a period of six weeks is rarely sufficient; that after a treatment of two months, the cure remains more frequently permanent, although secondary affections are liable to come on; after a treatment continued three months, secondary accidents are rare, although they do sometimes appear. After the first half of the course has been completed, he finds it beneficial to vary the form of the mercurial preparation, by which means the patient is scarcely ever incommoded by the process. He prefers the biniodide and bichloride alternately.

M. Vidal submits both primary chancre and secondary accidents to this mode of treatment, and finds that when used in the first stage of the affection, it proves of essential service in warding off secondary disease. He prefers

[1] *Archives Gén. de Méd.*, Fevrier, 1856, p. 193.

the bichloride, administered daily for two months, by which a cure is effected without consecutive mischief.

It is doubtful if a course of treatment equally mild as that recommended by these two pathologists would suffice for the kind of constitution commonly met with in England, except those perhaps of highly excitable and impressionable temperament. I rather prefer the mode adopted by Mr. Langston Parker, Mr. Henry Lee, and others, of fumigation; but my favourite method has hitherto been inunction, through which I have obtained satisfactory results. One or two drachms of strong mercurial ointment, rubbed to dryness upon the hypogastrium and groins every night, generally effects the desired crisis in from three to ten days. I also use the cinnabar, the red oxyd, or calomel, finely levigated, with equal effect—assisted occasionally by fumigation, combined with watery vapour, as recommended by Mr. Lee, and which I consider an important improvement.

The results of my observations on the habitudes and treatment of syphilis furnish the following corollaries:—

1. Primary syphilis may be made to disappear, without the aid of mercury, by the simplest treatment, such as the adoption of a meagre farinaceous diet, abstinence from stimulants and physical excitement, the proper use of baths, saline diluents and aperients, and by local applications.

2. But the disappearance of the local evidence of primary syphilis is no proof that the disease is cured; it more probably indicates the subsidence of the initiatory febrile stage. The poison is in a short time absorbed into the circulating current, and speedily produces that change in the crasis of the blood which will sooner or

later be manifested, either externally in some form of skin disease, affections of the mouth, nose, anus, or lymphatic glands; or in form of rheumatism, affections of the head, joints, nervous disorders, derangement of the liver and its associated organs, or disease of the uterus, sometimes tending to malignancy.

3. Should the individual so tainted have offspring, whether any outward manifestation be present or not at the time, the child will be imbued with the poison, and will probably exhibit the signs of its presence unmistakeably at some period of its early life, between infancy and puberty, or later. In early infancy these symptoms consist of cutaneous eruptions of characteristic form and tint, with affections of the fauces and mouth, and of the other mucous orifices; at a later period, eczema, impetigo, psoriasis, and their modifications—serpigo, lepra, pityriasis, &c.; erythema nodosum, intertrigo running into ulceration, warty excrescences, &c.; still later, in glandular swellings, mesenteric disease, and cachexia; and at a more advanced period, in tubercular degeneration and scrofulosis.

4. Although the phenomena of primary syphilis may be made to disappear under the adoption of simple measures, it is unwise to rely in all cases on these alone, inasmuch as the neglect of specific treatment may be the means of entailing disease of a lasting and destructive character.

5. A confirmed lues venerea is not curable, so far as my experience enables me to judge, by any remedy at present generally known, except mercury.

6. The statements advanced by authors respecting the injurious effects of mercury, when cautiously administered, in cases in which it is indicated, and wherein constitutional

peculiarity, such as was already mentioned, does not forbid it, are altogether frivolous and untenable.

The following observations, by which, through lapse of time, I am enabled to confirm the above statements, will serve to illustrate, not only the innocuity of mercury, but also its beneficial influence in the class of cases wherein it was administered.

Obs. 1.—In May, 1840, a farmer, forty-three years of age, had primary syphilis of severe character,—a large excavated chancre with indurated base and raised margins, and a smaller one of the same kind, with right and left inguinal abscesses, which suppurated freely. He was treated with iodide of potassium, no mercury, and local soothing applications. At the end of two months, the sores being healed, the cure was considered to be complete, and the treatment was discontinued, although each abscess continued to discharge a thin secretion through a small orifice. Six weeks later he was covered, almost from head to foot, with roseolous blotches; he had excoriation of the glans and prepuce, and increased inguinal irritation, the old orifices remaining unclosed. Iodide of potassium was again administered, combined with sarsaparilla, under which the skin affection disappeared; but during convalescence, a violent attack of rheumatism of the head and limbs came on, laying him prostrate many weeks. These symptoms also at length disappeared under the use of the same remedy, but their decadence was accompanied by the reappearance of a plentiful crop of cutaneous eruptions, with severe coryza and inflammation of the fauces; so that it appeared questionable whether the mitigation of pain was due to

the remedy employed, or to vicarious translation of the morbid principle. Seven months after the inoculation (in November, 1840), he presented himself to my notice, having the body and limbs nearly covered with eruptions, together with the other symptoms already mentioned. He was placed at once upon a course of mild mercurial alteratives, by which, in the course of a few days, he became slightly ptyalised, at which point the mercury was discontinued and ioduretted sarsaparilla substituted, and continued several months, at the end of which time he appeared to be quite cured. But he afterwards experienced repeated relapses of secondary symptoms, in form of rheumatism and skin affections alternately—the one or the other being always present for three and a half to four years. During the whole of this time he was partially under my treatment, the ioduretted sarsaparilla being repeatedly in use, and always proving beneficial to a certain extent, although its effect was never curative.

In the autumn of 1844, four and a half years after the primary inoculation, he again came to me with syphilitic eczematous patches on the head and neck, and a number of rupial crusts on the forehead, and on one arm and leg. On this occasion I urged him to submit to a thorough mercurial course, to which he willingly assented. The remedies consisted of calomel and opium twice daily, and inunction night and morning, by which means complete ptyalism was produced in five or six days. The mercurial fever lasted more than three weeks, after which he took ioduretted sarsaparilla with apparently good effect, and both rheumatic and cutaneous affections entirely disappeared.

During the following *eight years* I had frequent

opportunities of seeing and conversing with this individual; he not only had no relapse of symptoms, but remained in robust health uninterruptedly to the time of his last illness. He died, at the age of fifty-five, on the 16th of August, 1852, of an attack of acute broncho-pneumonia, brought on by exposure to inclement weather while attending a cattle market.

Obs. 2.—The wife of the preceding patient, thirty-eight years of age, contracted primary syphilis from her husband in May, 1840, when she was six months advanced in her ninth pregnancy. Her symptoms, which were equally severe as those above named, were treated in like manner, and the primary affection disappeared at the end of eight or nine weeks. But the parts originally affected remained hard and tender, and she had sore throat and husky voice at the time of her delivery, which took place on August 3, 1840. The infant, at birth, apparently well grown and healthy, soon became fretful and emaciated. At the age of four weeks its skin was covered with eruption; stomatitis supervened, and it died at the age of thirty-six weeks.

Her attacks of secondary disease were fully as frequent and intense in some of their forms as those of her husband had been;—the more severe symptoms however being, in her, those of the throat and the genito-urinary passages. From the latter there was constantly a plentiful discharge of purulent secretion, which had probably the effect of relieving the system in a measure, as the cutaneous affection was comparatively trifling, although the paroxysms of rheumatic pain of the head and limbs appeared to be equally severe and frequent.

At the time of her husband's cure, in 1844, she was

away at the sea-side, whence she returned, after a prolonged sojourn, much improved; and during the following eighteen months recourse was repeatedly had to the same kind of change, always with benefit, but never with a curative result—relapses taking place as often as she returned home.

Six years after the primary inoculation (in 1846), suffering with unusual severity from ulcerated throat, nodes on both tibiæ, on one ulna, on the cranium, and on the alveolar arch of the lower jaw on the left side, which was followed by extensive destruction of bone, she requested to be subjected to the same kind of treatment which had succeeded in removing her husband's troubles. This request was at once complied with. The treatment was every way similar to that adopted in Obs. 1, and the result was equally satisfactory. I have been in the habit of seeing this person from time to time every year since her cure, and she has not since had a single bad symptom of any kind. The treatment occupied about five or six months, the mercurial fever having been followed by a course of ioduretted sarsaparilla continued several months. She paid me a visit on October 25, 1856, looking better than I had ever seen her; and she informed me that, since the completion of the cure, *ten years* ago, she had enjoyed uninterrupted good health.

Obs. 3.—The daughter of the preceding parents, at the age of eleven years, received a secondary inoculation upon her lips from kissing those of the affected infant, her sister. The affection first appeared in form of eczema of the lips and about the angles of the mouth, afterwards extending to the throat, with partial loss of voice, and rheumatic pains of the head. In a few weeks a plentiful

crop of copper-coloured roseola came out over the whole body, at which time the rheumatic pains abated. As the general eruption and rheumatic pains, under the use of iodide of potassium, subsided, the affection seemed to concentrate itself on the face,—the eruption, which had first appeared about the right angle of the mouth, altered in character, spreading rapidly on the cheek, and soon occupying the whole of that side of the face. In process of time this appeared as a serpiginous psoriasis covering the cheek, reaching across the nose, over the margin of the jaw, and half way down the neck. In this form it existed, with occasional temporary abatement, for ten or eleven years. Its partial, and on one occasion complete, subsidence was attended with violent pain of the head, which, during its prevalence, was so severe as to prostrate her completely.

In her seventeenth year the eruption was made to disappear for a time by local applications, but was replaced by rheumatism of the head, of a character so violent that she hailed with joy the return of the skin deformity, attended as it was with consequent removal of pain, and she would not afterwards consent to the employment of any local remedy for its relief, from dread of the head-affection.

At the age of twenty years, in August, 1849, she was married to a man free from taint, and was delivered of her first, a healthy female child, at full term, in August, 1850. This child soon exhibited signs of constitutional syphilis—eruptions, stomatitis, obstructed nasal breathing, fissured anus, and emaciation. It was frequently under treatment of a simple kind, and was from time to time relieved, but never cured. It died at the age of four years and eleven months, emaciated to the last

degree. It had never, from the age of six or eight weeks, been free from stomatitis, with, now and then, patches of erythema nodosum, intertrigo degenerating into ulceration; and at a later period rupia and anasarca. It had never been able to walk; its teeth appeared in due time, but decayed early, and dropped out. The nasal bones had become flattened—the vomer and ossa turbinata having undergone complete decay. It must be specially stated that *this child was never mercurialised.*

When the child was about twelve months old, and still at the breast, at my instance the mother consented to wean it and undergo a course of mercurial treatment. She was accordingly freely ptyalised by means of inunction, and during the existence of the mercurial fever the cutaneous affection completely disappeared, without being followed, on this occasion, by the head-pain, or by any inconvenience whatever. She has since remained perfectly healthy, having borne two children, who have not thus far exhibited a trace of disease, but continue in the healthiest condition. She visited me at my request, in company of her mother, on October 25, 1856, and declared that, since the treatment which was practised *five years* ago, she could truly say that she had not experienced ache or trouble beyond what is incidental to child-bearing, and the skin has remained as smooth and clear as that of a healthy infant.

Obs. 4.—S. W. contracted syphilis from her husband soon after marriage, at the age of twenty-five, in 1836. The husband had experienced an acute attack of syphilis some months previously; but, having been actively treated, he had been led to believe that the trifling excoriation which still remained was not likely to prove

injurious. The complaint in him, however, had probably not lost its primary character, as the wife had several hard and very painful ulcers on the labia pudendi, an inguinal abscess on each side, ardor urinæ, and purulent leucorrhœa. She took pills of a red colour (probably the pil. Plummeri) for a length of time, but her mouth was never made sore. Before the inguinal abscesses were healed, a crop of red blotches came out on the forehead, neck, arms, legs, and on other parts of the body, followed by sore throat and inflamed eyes, requiring the use of leeches and caustic. The treatment was continued several months, but she felt certain that, although the remedies were discontinued, and the complaint was mitigated, she was far from being cured. Nor was it long after ere the symptoms reappeared in all their intensity, and continued, uninfluenced by repeated remedial efforts, for several years. Her first pregnancy ended March 4, 1837. The child, well grown and seemingly healthy at birth, had soon a crop of cutaneous eruptions with slight stomatitis, which were at first relieved by treatment, but repeatedly returned in an aggravated degree, attended with constant wasting, and proved fatal at the age of two and a half years. The second child, born June, 1839, died at the age of twenty-three days; the third died in September, 1840, at the age of twenty-five days; the fourth died March, 1842, aged five and a half months, each having sunk under precisely similar symptoms, the syphilitic nature of which could not be doubted. The fifth and sixth pregnancies ended abortively at four or five months; the seventh child, born at full term and apparently healthy, died of syphilitic disease at the age of eighteen weeks, in the summer of 1845. In June, 1846, when eight months advanced in her eighth preg-

nancy, she presented herself in a miserable state of health. She had for a length of time been tormented with pain of the right ulna, upon which was a periosteal tumour an inch and a half in length and proportionately elevated, very hard and exquisitely tender. She had also sore throat and husky voice, purulent leucorrhœa, and lumbar and hypogastric pains. The treatment consisted in the administration of soothing remedies during the remainder of pregnancy, which ended, at full term, August 12, 1846; the child, having a number of pemphigous vesicles on various parts of its body, lived only a few minutes.

After the puerperal period had passed over, the cervix uteri was found to be indurated and very tender, the labia being divided into several hard nodules with ulcerated surfaces, furnishing a free puriform secretion. She was then placed under the influence of mercury, which was made to produce its *full* effect. After the subsidence of the mercurial fever, which was unusually protracted, she took iodide of potassium for six or eight weeks more. Her recovery was favourable at the end of three to four months—every painful symptom having left her without local treatment, except those of the uterus and the arm, the former having required a few applications of nitrate of silver. The tumour of the ulna, which had been laid open with the knife, resulted in an extensive exfoliation, requiring a long time to get well. After several months a sequestrum of dead bone, from two to three inches long, came away, followed by the escape of several smaller fragments at distant intervals, and the wound at length healed. From that time to the present she has remained in robust health.

Her ninth pregnancy ended June 8, 1848; her

tenth, July 19, 1852; her eleventh, July 20, 1855, each in the production of a healthy child at full term. These three children have not, thus far, exhibited the slightest trace of disease of any description whatever, except measles; and although residing in one of the most densely populated districts of the town, they continue in the possession of unexceptionable health, both in appearance and in reality. I am in the habit of seeing this family from time to time. A few weeks since the mother, in answer to my inquiries, said she was never better in health and spirits at any period of her life than she had been since the treatment in 1846-7.

Thus for ten years—from 1836 to 1846—this woman laboured uninterruptedly under syphilitic symptoms, which were repeatedly but ineffectually treated by non-mercurial remedies, chiefly by iodide of potassium. During this term she had eight pregnancies, the fruits of all of which perished, and her own health was in a most miserable state. In the last *ten years*—from 1847 to 1857—she has borne three healthy children, who survive and flourish, and she herself has been all the time in perfect health.

Obs. 5.—I treated a gentleman for primary syphilis twelve years ago, when his first child, a female, was ten months old, nursed by its mother, both being in good health. He incurred no risk of communicating this affection in its primary form to his wife, as, being at the time from home, engaged in commercial pursuits, the disease was discovered and its treatment commenced before his return to his family. The sore, as he represented, was already improving under the treatment which had been prescribed—iodide of potassium and a lotion;

but as it was very large and deeply indurated, I was induced to recommend the use of mercury. To this drug, however, he had a strong objection, so the first-named remedy was continued.

His recovery seemed to progress favourably during the few days he remained under my notice, after which he was again absent from town about two months longer. On his return, when his child was twelve and a half months old, he presented himself to my notice. The sore had been healed from three to four weeks, and he had been assured that the cure was perfect. When the child was fifteen months old, and still at the breast, she had a crop of scaly blotches on the face, forehead, nates, thighs, and a few on the abdomen, with sore mouth, obstructed nasal breathing, and had become emaciated and fretful. The mother at the same time complained of sore nipples—which she believed had been caused by the affection in the child's mouth—ardor urinæ, excoriation of the vulva, and puriform leucorrhœa. While these two patients were under treatment the husband had an attack of secondary roseolous blotches, covering the chest and arms, and sore throat, all which yielded under the use of ioduretted sarsaparilla.

Although the child was repeatedly relieved by treatment, an inveterate stomatitis at length set in, accompanied with great emaciation, under which she died at the age of twenty months. The mother, after weaning, soon experienced an improvement in the state of the nipples, but at the same time had an attack of inflammation of the fauces and larynx, and, at a later period, a crop of roseolous blotches on the arms and chest, with a highly irritable state of the vagina and cervix uteri. When she appeared to be favourably recovering from

these troubles, an attack of acute metro-peritonitis, attributable to imprudent exposure, came on, from which she died about two months after the death of her infant. During several years following, the widower had repeated attacks of secondary disease, which were as often subdued by ioduretted sarsaparilla, change of climate, and medicated baths, with which he seemed satisfied.

He was the second time married seven years ago, during an interval of freedom from external symptoms after a continental tour, believing this time that he was really cured, although he afterwards confessed that he did not think his throat had ever been quite comfortable. When his wife was five months advanced in her first pregnancy, he requested me to see her for an attack of what he denominated hæmorrhoids, but which I found not to be hæmorrhoids at all, but a number of warty excrescences occupying the circuit of the vulva, causing intense suffering. These had existed already about two months. She was delivered two months afterwards, the child being still-born and in a state of decay. On the occasion when my assistance was solicited for his wife, in answer to my inquiries respecting himself, he showed me a number of rupial scabs occupying both arms and one leg, for which he was taking his favourite remedy, and had prevailed upon his wife to take it also. He still refused to adopt my own plan of treatment for himself. During her second pregnancy, she had another series of troubles like the preceding, but much more severe, the excrescences occupying not only the vulva, but a great part of the vaginal canal; these began to subside only after delivery, which took place at the end of the seventh month, the child still-born and decayed.

I now strongly represented to him the necessity of

a decided course of treatment of a different kind, both for himself and his wife, and indeed refused to render further services unless the cases were left entirely to my own management. To this he now willingly assented, having become thoroughly disheartened by the failures he had so repeatedly witnessed. They were both placed accordingly under mercurial treatment practised by inunction, which produced the *full* crisis on the eighth or ninth day in the wife, and a few days later in the husband. The effect continued unabated fourteen or sixteen days, and disappeared entirely about the 36th day from the commencement. After this they took the ioduretted lime-water with an aromatic bitter for two months; and having subsequently spent a few weeks at the sea-side, returned home in vigorous health. Neither husband nor wife has experienced the least trace of the complaint since, and they remain at this day as healthy in every respect as they have been at any period of their lives. She has since borne two children, who are as healthy as their parents.

Of this group of cases it seems worthy of remark, that the individual with whom the disease originated appeared, and was considered to be, perfectly well, and had been so, as he believed, a whole month before the risk of contamination was incurred. The manner in which the evidence of the poison manifested itself is also not a little singular, the infant having exhibited unmistakeable signs of the syphilitic constitution a number of days before the mother, its nurse, through whose system the taint must have been transmitted, experienced any inconvenience whatever. He himself, for a period of seven years, was tortured with secondary and tertiary troubles in various forms, which had manifestly been the cause of the death

of three children, and probably of that also of his first wife, and certainly had poisoned the health of his second wife for the space of two years. There is little doubt that had the plan of treatment which ultimately cured him been adopted when it was first proposed, much suffering might have been spared, and perhaps some lives prolonged. In the following Observation, although no lives were sacrificed, it was probably because the early implantation of taint prevented the propagation of issue.

Obs. 6.—A gentleman consulted me in 1838, eighteen months after his marriage, for urethral stricture. Two and a half years before marriage—in 1834—he contracted a severe gonorrhœa, which got well by means of simple treatment after a duration of several months; but within a year afterwards he experienced several attacks of eruptions on the skin of the chest and thighs, and difficulty of urination, which speedily got worse. He was relieved by treatment, but at the time of his marriage the urethral affection still existed to a certain degree, and some eruption remained. At the time of my first interview I passed with considerable difficulty a very small catheter —I think a No. 1 or No. 2,—and he had then a serpiginous patch of eruption, the size of a hand, on the left thigh. I placed him on a *mild* mercurial course, and used bougies assiduously, gradually increasing their size. By these means and the assistance of a carefully regulated diet, the prohibition of stimulating drinks, and warm baths, he improved considerably; the urethra having become after two or three months sufficiently capacious to admit a No. 8 instrument. The patch of eruption also faded, but did not disappear. Although the mercurial preparation was continued a length of time,

his mouth was never more than slightly touched. He soon became able to use the bougie himself, and while he did so daily and lived temperately, no trouble was experienced; but its abandonment for a few days, or the perpetration of error in living, was followed by increase of mischief. Under such circumstances I frequently had occasion to resort to the above-named measures for several years following.

During the first year of my attendance upon this gentleman, I had occasion to treat his wife for irritation and verrucous excrescences within and about the genito-urinary passages, the real nature of which I did not at that time understand. She had also a puriform leucorrhœa, which was sometimes offensive, intense suffering during her monthly visitations, falling of the hair in patches, and the complexion had become very sallow,—all which troubles had arisen since marriage. She was never pregnant. These symptoms, as well as those of her husband, continued to recur at intervals for a long time, and were as often relieved by treatment, but not cured. It was not until the lapse of several years that I was led to suspect their real nature to be venereal; and, having satisfied my mind on the subject, I imparted my convictions thereupon to the husband, and proposed a more vigorous plan of treatment, which, however, was not then adopted.

At length, in 1850, they were prevailed upon to submit themselves to a *full* course of mercury, after the plan adopted in the preceding cases; the whole process, including the tonic treatment, lasting about three months. Long before the completion of this course every morbid symptom had disappeared in both patients, without the assistance of local measures.

Thus for sixteen years this gentleman, and his wife for at least twelve years, had constantly laboured under a train of very painful disasters of specific character, which medication, repeatedly and perseveringly administered, had failed to do more than mitigate. Since the adoption of the course of treatment above mentioned, now more than *six years*, their enjoyment of health has been uninterrupted, and equal to what it was before marriage. During the whole of this period the bougie has not been needed.

The following observation is transcribed from the MS. notes of Dr. Merei:—

Obs. 7.—"In 1840 a gentleman sought my advice on account of an exostosis which had formed on the left side of his forehead. It had first made its appearance eighteen months previously, and had slowly increased in size, attended with intense suffering, to the time of this interview, when its dimensions were equal to the section of a hen's egg. He had experienced within the preceding fortnight two apoplectic fits, which had left numbness of the right arm and distortion of the mouth. He stated that he had been three times treated with mercury, to a moderate degree, for three separate attacks of specific ulcers on the penis. In 1832, one year after the disappearance of the last of these three ulcers, he was under treatment for a severe attack of rheumatism, which he thought had been caused by exposure to cold, but which some medical men viewed as the result of the disease under which he had laboured; while others attributed it to the mercury which had been employed in the treatment: a proof of the unsatisfactory state of knowledge on this subject at that time. The rheumatic

affection consisted of pain of the severest character, of the head and joints, but varying from time to time, in intensity. For these symptoms he was treated with iodide of potassium, in doses of one drachm per diem continued several weeks, but without producing any favourable result. During the following six or seven years he continued to suffer most intensely in the same manner; he took over and over the same remedy, had recourse to medicated baths and other systems of treatment, with scarcely any benefit, his life being an existence of misery. He sought relief from every available source, but found none. When the exostosis appeared,—which, with all his other troubles, came to be looked upon as a mercurial infliction,—another course of iodide of potassium was tried by me to the fullest extent, but with no beneficial result whatever.

"Having thus failed to make an impression on the symptoms, I took him, at his own request, to consult Dr. Seutin, of Vienna, celebrated for his successful treatment of syphilitic affections by means of mercury. This gentleman recommended what he terms the great inunction cure, which I undertook to carry into effect, according to his instructions, at Pesth. After thirteen full inunctions the system became imbued to the desired extent, by which he was restored to perfect health. The exostosis disappeared without local applications; the rheumatism and every other trouble vanished entirely by the time the mercurial fever was at an end, nor was any other drug used or needed. During the following seven or eight years I saw him repeatedly, and he still remained in the enjoyment of good health, not having had the slightest reminiscence of his former malady, or of any of

the troubles which had been laid to the charge of the remedy which finally cured him."

For *ten years* this gentleman's life seems to have been one of constant suffering of the acutest character. By one short and simple course of treatment the weight of accumulated evil entirely vanished, and has not reappeared. Since the above notes were written, Dr. Merei has not had an opportunity of again seeing this gentleman; but in the year 1851, *eleven years* after the "great inunction cure," he encountered his parents at Ostend, who informed him that their son's health had ever since been, and still continued unexceptionable.

Obs. 8.—A lady remarkable for her healthy and vigorous constitution had been married, at the date of this record, ten years and a half, to a man equally strong and healthy. Her first pregnancy ended abortively at two months, her second at three months; both without adequate assignable cause. Her third delivery took place at full term—the child, at birth, being apparently well-grown and healthy. At the age of twelve weeks a crop of eczematous patches on broad erythematous bases came out on the face, soon spreading over the entire scalp, then appearing on the limbs and certain parts of the body. In a somewhat varied form the eruption continued, more or less severe, for about twelve months—that is to say, until the child had attained the age of about sixteen months, at which period it suddenly disappeared, leaving the skin perfectly smooth and of a peculiar marborescent paleness. On the subsidence of the eruption, symptoms of head affection supervened, which ended fatally by cerebral effusion at the age of eighteen months. Her fourth pregnancy resulted in the

birth of a still-born child at six months; her fifth at eight months — child still-born; her sixth at seven months, also a still-birth.

I saw her for the first time professionally when she was six and a half months advanced in her seventh pregnancy. The train of symptoms which had usually preceded premature delivery on former occasions had already set in, and she believed that expulsion was imminent, as the fœtal movements were no longer perceived.

I found the abdomen abnormally tumid, with arterial throbbing in every part of it. The fœtal pulsations were indistinct, numbering 94 beats in the minute, and very feeble. Judging from these manifestations that a state of uterine apoplexy existed, a free depletion was at once practised, which had the effect of relieving the actual distension very materially, and the fœtal pulse, shortly afterwards, rose to 140, nearly the normal average, becoming at the same time more distinct; the movements were again felt as perceptibly as before, and she was more hopeful for a time of a favourable issue. At the end of twelve days, however, the congestive symptoms reappeared, and were again relieved by bleeding; and a third time the depletion was practised under similar conditions, and with a like result. It was now confidently hoped—the patient feeling so decidedly better—that a favourable result would be obtained; but the pains of labour suddenly came on at the end of the eighth month, and she was speedily delivered of a dead child, having a number of pemphigous vesicles occupying various parts of its body. It is probable that apoplexy of the placenta with immediate separation had taken place, and also that this organ was implanted low down, as it

escaped before the child, attended with a moderate amount of hæmorrhage.

The condition of the skin of this child at birth was the first positive intimation I had received respecting the existence of a specific taint in the parents; although, from the nature of the symptoms in the infant, whose history was given in a preceding paragraph, its existence had been already suspected. Inquiries were consequently instituted, which ended in the following disclosure:—

Two years and a half before marriage—that is, thirteen years ago—the husband had syphilis, which was "cured" by ioduretted sarsaparilla. During the two years following this alleged cure, he experienced several attacks of secondary symptoms, which also disappeared under the same kind of treatment. Among the group of secondary cutaneous phenomena, a prominent symptom was psoriasis palmaris, which continued to prevail after all the other troubles had disappeared. Six months at least before marriage, however, he was considered to be perfectly well, and free from every risk of contaminating, although the affection of the hands remained.

During the first seven or eight years of his married life the psoriasis was never absent, and it sometimes became so aggravated as to render him incapable of holding a pen. He had not again incurred the risk of a fresh infection.

On the occasion of my inquiries, after his wife's seventh accouchement, the palmar flexuosities of both hands, especially about the thumb and forefinger, were occupied more or less with angry fissures bounded by raised ridges of hardened skin. He avowed that he never had this affection before the syphilitic attack, nor had he been free from it since.

My expressed opinion was, that the psoriasis of the

hands was of syphilitic nature, the remains of the disease which he had contracted thirteen years before, and that the abortive pregnancies which his wife had experienced, together with the fatal effect upon the offspring, were probably due to the same agency.

As a curative measure, I recommended free mercurialization, for both husband and wife, which was unhesitatingly assented to. The treatment was commenced a month after the wife's delivery,—in the husband by means of inunction, in the wife by the internal administration of the chloride. The required effect was procured in eight to ten days, and continued, almost unabated, thirteen or fourteen days, after which the mercurial fever speedily subsided. The ioduretted sarsaparilla for the husband, and the daily use of Carlsbad water for the wife were made use of for seven or eight weeks following. The strictest hygienic regulations were observed throughout. The cure appeared to be complete at the expiration of three months from the beginning. It may be remarked, that the psoriasis already alluded to disappeared without local treatment ere the curative process was more than half accomplished, and the hands have to this time remained perfectly soft and smooth.

This lady has since borne two healthy children at full term, both now living. She herself has not suffered the least inconvenience during the whole period of pregnancy, in either instance—no symptoms of congestion, or abdominal distension, or varicosis—no cessation of fœtal movements or premature threatenings; but both she and her husband have enjoyed a more comfortable state of health since the treatment than at any time previously during their married state.

Thus, the husband for ten and a half, and the wife for the first eight years of her married life, had been constantly ailing, and the fruit of seven pregnancies in succession had perished. Since the treatment their health has not been disturbed by an unfavourable symptom, and each of the two last pregnancies has ended favourably at full term, the children still living.

Obs. 9.—The following remarks have reference to a case of scirrhus of the uterus, not of syphilitic origin, but introduced in this place for the purpose of showing the effect upon the constitution of a full mercurial medication, after the lapse of several years from the period when the treatment was practised.

The complaint under which the patient laboured, commenced thirteen and a half years ago, at the latter part of the puerperal period following her first delivery at full term; she had previously had an abortion at four months, brought on by emotional perturbation. At the period named, she had an attack of metro-peritonitis, which kept her prostrate several months. Twenty months afterwards, she was again delivered at full term of a living child, followed by another attack of acute metro-peritonitis, of a still more severe character. After a protracted illness and imperfect recovery, chronic inflammatory hypertrophy, with induration of the lower section of the uterus, remained; which came to be considered, after a prolonged and ineffective treatment, as malignant scirrhus. Several medical men of eminence, at different times consulted, did not hesitate to pronounce the same opinion. I saw the patient for the first time, along with her usual attendant, in 1850. The cervix uteri was large, nodulated, hard as cartilage, and

exquisitely tender. The menstrual flux was scanty and attended with great suffering. Having previously seen some such cases benefited by a combination of constitutional and local treatment, I felt unwilling to pronounce an opinion as to its nature until the effects of remedies should have been witnessed.

This patient had what is considered an idiosyncrasic intolerance of mercury. A single grain of calomel or of blue-pill was sufficient to induce severe salivation in the space of a few hours. Other constitutional treatment in considerable variety was therefore tried, together with local applications, none of which, at the end of twelve months, had produced any benefit, and the local applications merely aggravated the suffering.

Although she bore mercury so ill, I felt convinced, notwithstanding, that this remedy was indicated, and decided to try it in such doses as the system could bear for a length of time, without producing mercurialism at once; for I hold the opinion, that the salivation which is determined suddenly by a single dose, is no evidence of that curative operation which ought to be looked for from the remedy when admitted into the system by the process of assimilation. I therefore determined to administer it in doses of one-twentieth of a grain three times a day—to be augmented or lessened if needful. By means of these doses the desired effect was procured in about twenty days, and the action kept up by a still smaller dose several weeks longer. From the time when the mercurial action became decidedly evident in this way, a change in the affected part was perceptible. The local caustics no longer aggravated the symptoms as they had previously done, but were always followed by diminution of tension and relief of suffering. The im-

provement progressed slowly but steadily, and in the course of twelve months from the adoption of this plan the uterus was reduced to nearly its normal dimensions; the morbid sympathies, which had for several years rendered life miserable having gradually lessened in severity, and latterly had almost entirely disappeared.

This is the summary.—For a number of years, embracing the most useful portion of her life, this patient was laid prostrate by sufferings of the most painful character, arising from chronic local disease, the residue of acute inflammation, perpetuated by the periodical vascular congestion of the menstrual crises. By means of the treatment adopted, she is now restored to health and usefulness, and has not experienced any trouble whatever which can be attributed to the effect of the remedy employed in the treatment.

It would require but little time, did space permit, to furnish from my own note-books numerous instances of a character like the preceding, and doubtless most readers of these remarks will feel themselves able to contribute more or less largely to the stock of information on this subject. The multitude of troubles which writers have attributed to the effects of mercury in the treatment of syphilitic affections may be found to arise from the imperfectly controlled influence of the venereal poison, due most probably to some error committed in the mode of administration of the remedy, whereby the salutary influence which it is capable of imparting has not been obtained.

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